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PRINCIPAL INVESTIGATOR: Denise Walker, PhD

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14. ABSTRACT

This study has developed and tested a brief telephone-delivered motivational enhancement intervention (MET) for substance abusing military personnel who are not currently in substance abuse treatment. The intervention is designed to prompt: (a) a willingness to participate voluntarily in a self-appraisal of substance abuse behavior and consequences, (b) self-initiated change or enrollment in a treatment or self-help program, and (c) cessation of abuse of alcohol or other drugs. Following focus groups with 26 participants, this study recruited 242 military personnel who have a current substance use disorder via local publicity. The recruitment period extended over a period of 41 months. Following screening and a baseline assessment, enrolled participants were randomly assigned to one of two study conditions, each consisting of one 45-60 minute session by phone: (1) the experimental MET condition, or (2) a brief educational session. The MET session involved a counselor using motivational interviewing strategies to establish an empathic relationship, to support the caller in candidly exploring the problems he/she has experienced with alcohol/drugs, and weigh the pros and cons of future options. The educational session was didactic and provided information on alcohol and drugs. Participants in both conditions were reassessed at three and six months following exposure to the intervention. Completion rates for assessments and intervention sessions were high – all at 79% or greater, and analyses show strong evidence of the intervention's efficacy.

15. SUBJECT TERMS
Alcohol abuse, substance abuse, early intervention, motivational enhancement therapy

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The Warrior Check-Up

FINAL REPORT

Contents

1. INTRODUCTION:

This study has developed and tested a brief telephone-delivered motivational enhancement intervention (MET) for substance abusing military personnel who are not currently in substance abuse treatment. The intervention is designed to prompt: (a) a willingness to participate voluntarily in a self-appraisal of substance abuse behavior and consequences, (b) self-initiated change or enrollment in a treatment or self-help program, and (c) cessation of abuse of alcohol or other drugs. Following focus groups with 26 participants, this study recruited 242 military personnel who have a current substance use disorder via local publicity. The recruitment period extended over a period of 41 months. Following screening and a baseline assessment, enrolled participants were randomly assigned to one of two study conditions, each consisting of one 45-60 minute session by phone: (1) the experimental MET condition, or (2) a brief educational session. The MET session involved a counselor using motivational interviewing strategies to establish an empathic relationship, to support the caller in candidly exploring the problems he/she has experienced with alcohol/drugs, and weigh the pros and cons of future options. The educational session was didactic and provided information on alcohol and drugs. Participants in both conditions were reassessed at three and six months following exposure to the intervention. Completion rates for assessments and intervention sessions were high – all at 79% or greater, and analyses show strong evidence of the intervention's efficacy.

2. KEYWORDS:

Substance use	Check-Up Model
Active-Duty	Telehealth
Military	Social Norms
Soldiers	Personalized Feedback
Motivational Enhancement Therapy	Alcohol
Motivational Interviewing	Drinking

3. OVERALL PROJECT SUMMARY:

Statement of Work:

1) *Manualize participant recruitment mechanisms*.
    a) *Hire and train Project Coordinator* – COMPLETED
    b) *Establish oversight team procedures of operation* – COMPLETED
    c) *Establish working agreement with Fort Lewis Substance Abuse Rehabilitation Program concerning communication, collaboration and procedures* – COMPLETED
    d) *Obtain IRB approval (UW and Fort Lewis)* – COMPLETED

e) *Complete the regulatory review process for research involving human subjects, including attaining approval of the second tier Human Research Protection Office (HRPO) human subjects approval.* – COMPLETED

f) *Recruit 10 military personnel who use substances, 10 military personnel who have completed substance abuse treatment, and 10 Fort Lewis service providers for focus groups*. – COMPLETED

g) *Analyze focus group findings and adjust recruitment materials*. – COMPLETED (See manuscript titled, "Reaching Soldiers with Untreated Substance Use Disorder: Lessons Learned in the Development of a Marketing Campaign for the Warrior Check-Up Study" in appendix E.2 of the attached protocol for analysis of focus group data as related to recruitment materials.)

h) *Finalize the recruitment advertisements and materials.* – COMPLETED (See appendix B of the attached protocol for recruitment advertisements created for this trial.)

2) *Develop and manualize MET intervention for target population*.

a) *Draft the counseling protocols for MET and Education*. – COMPLETED

b) *Develop a personalized feedback report tailored to military personnel.* – COMPLETED (See appendix C of the attached Clinical Manual for sample personalized feedback report.)

c) *Seek responses from focus group members concerning each element of the interventions.* -- COMPLETED

d) *Analyze the findings from the focus groups.* – COMPLETED

e) *Finalize the MET and Education protocols and counselor manuals.* – COMPLETED (See attached Clinical Manual for intervention protocols.)

f) *Draft counselor training protocol.* – COMPLETED

g) *Hire and train 2 counselors.* – COMPLETED

3) *Conduct a randomized clinical trial*.

a) *Develop web-based follow-up assessment program and protocol for deployed.* -- COMPLETED

b) *Hire and train 2 assessors.* -- COMPLETED

c) *Finalize study methodology*. – COMPLETED (See attached protocol for description of finalized methodology.)

d) *Obtain IRB approval*. -- COMPLETED

e) *Recruit and enroll 240 participants*. – COMPLETED (Final n=242)

f) *Deliver interventions*. – COMPLETED (83% completion rate for interventions. See manuscript titled, "Randomized Trial of Motivational Interviewing Plus Feedback for Soldiers With Untreated Alcohol Abuse" in protocol appendix E.4 for further details on intervention delivery rates – page 6 of manuscript; page 192 of protocol.)

g) *Conduct follow-up assessments with study participants*. – COMPLETED (87% & 86% completion rates for 3- and 6-month assessments, respectively. See manuscript titled, "Randomized Trial of Motivational Interviewing Plus Feedback for Soldiers With Untreated Alcohol Abuse" in protocol appendix E.4 for further details on assessment completion rates – page 6 of manuscript; page 192 of protocol.)

h) *Hire and train 2 coders*. -- COMPLETED

i) *Code 25% of intervention sessions for fidelity to the intervention.* – COMPLETED (See manuscript titled, "Randomized Trial of Motivational Interviewing Plus Feedback for Soldiers With Untreated Alcohol Abuse" in protocol appendix E.4 for discussion of fidelity coding – page 5 of manuscript; page 191 of protocol.)

j) *Analyze outcomes* – COMPLETED (See manuscripts in protocol appendices E.2, E.3, & E.4 for outcome analyses.)

4) *Report study findings to pertinent Madigan Army Medical Center staff*.

a) *Prepare a draft report that summarizes the study purposes, methods, and findings*. – COMPLETED

b) *Meet with Madigan Army Medical Center staff to discuss the draft report, seek suggestions concerning modifications needed before the report is finalized, and directions for future efficacy research with the two interventions.* – COMPLETED

Statement of Work, No-cost Extension:

1) *Manuscripts*:

a) *Publish a manuscript detailing primary outcomes of the study in a high-impact journal.* – COMPLETED (See appendix E.4 of the attached protocol for the manuscript, titled "Randomized Trial of Motivational Interviewing Plus Feedback for Soldiers With Untreated Alcohol Abuse," Published in the Journal of Consulting and Clinical Psychology.)

b) *Prepare manuscripts on several ancillary topics based on the Warrior Check-Up data including: suicidality and depression, PTSD, and mechanisms of action of the intervention specifically focusing on normative perceptions of use.* --ONGOING (The "mechanisms of action" paper is in preparation currently.)

2) *Dissemination of results to stakeholders at JBLM*.

a) *Provide any technical support that Army or DoD personnel may request in relation to the Warrior Check-Up.* – N/A (We have not had any requests to provide technical support.)

b) Present study findings to interested groups at JBLM such as health providers, chaplains, etc. As we learned in the start-up phase, such processes take time. – COMPLETED (Findings presented to Madigan Behavioral Health August 2016; T2 September 2016)

c) *Identify national mechanisms for implementation.* – COMPLETED & ONGOING (We have presented study findings to representatives of the National Center for Telehealth and Technology group, located at JBLM, to discuss possibility of developing a mechanisms for electronic dissemination of interventions indicated by study findings. Our study information has been passed along to Military One Source with an offer from us to meet and/or answer questions.)

d) *Create an offline/paper version of the assessment and Personalized Feedback Report to disseminate to any Army provider interested in using and implementing the intervention.* – COMPLETED (See Attachment C for offline PFR tool)

3) *Conferences: Warrior Check-Up findings to be presented at national academic conferences.* – COMPLETED (See Section 6 of this report for list of conference presentations.)

4) *Cost analysis*.

a) *Conduct an analysis of implementation costs* – COMPLETED (See attachment D for summary of cost analysis.)

b) *Disseminate a study brief including cost analysis to JBLM Stakeholders* - COMPLETED

5) *Archiving Study Materials* – COMPLETED (UW IRB application has been closed and data is archived at the office of the Innovative Programs Research Group at the University of Washington School of Social Work.)

4. KEY RESEARCH ACCOMPLISHMENTS:

1) The development of an advertising campaign aimed at eliciting self-referral of substance abusing soldiers to a brief intervention (See attachment B for clinical manual).

2) The adaptation of Motivational Enhancement Therapy for an active duty Army population with corresponding manual and intervention materials available for dissemination (See attachments B and C for clinical manual and dissemination materials, respectively).

3) The intervention manuals can be used in future trials and could be tested with various populations including substance abuse treatment seekers as a prelude to treatment, indicated prevention for those at risk for substance abuse problems, as a brief intervention in opportunistic settings such as primary care or emergency departments for those who screen at risk for substance abuse, or as a mandated intervention for those with alcohol-related arrests.

4) Successful completion of a randomized trial, recruitment of the proposed number of participants, and excellent follow-up rates.

5) This trial stands as one of the only efficacy trials of a substance abuse intervention specifically adapted for and tested with active duty military personnel – and responds to the IOM's 2012 report that suggests the military should "update" treatment service provision to include evidence-based practices.

6) Identification that Spice or synthetic cannabis was the most used illegal substance among the sample of Army personnel. Synthetic cannabis may be attractive to active duty military due to the difficulties in drug testing for this substance. Policy implications include the recommendation of clinicians and healthcare professionals to specifically assess for synthetic cannabis.

7) Finding that perceptions of military specific drinking norms have a strong influence on soldier drinking behavior as opposed to perceptions of civilian drinking norms. Normative perceptions of soldier drinking could be targeted as an intervention point. Adaptations of drinking norms need to be military specific to be effective.

8) A brief Motivational Enhancement Therapy intervention delivered via telephone significantly reduced drinking, military specific drinking consequences, and dependence diagnoses more than an educational control session.

9) Cost analyses were conducted post-hoc.

5. CONCLUSION:

This trial represents a unique contribution to the literature as one of the only randomized controlled trials conducted with active duty military personnel for substance abuse. Further, the experimental intervention was specifically adapted for military personnel and is brief with a phone delivery. The intervention reached and attracted a clinically severe sample who were largely treatment naïve. In addition to the far majority of participants having an active substance dependence diagnosis, other behavioral health indicators suggested that participants were also experiencing clinically significant levels of PTSD, depression and anxiety. The MET intervention significantly reduced drinking, military specific drinking related consequences and dependence diagnoses more than an active Education control. The combination of large reductions in drinking with reductions in dependence diagnoses suggests not only statistically significant change but also clinically meaningful levels of change among soldiers receiving the MET intervention. Given the ability of this program to reach and attract non-treatment seeking soldiers who found the intervention to be highly acceptable (286 participants were eligible for the trial and 242 participants enrolled), consideration of including this intervention among already existing services at the Army Substance Abuse Program is warranted. The implementation of this intervention may be particularly effective if provided under similar conditions as the CATEP program Alcohol Treatment Program) or providing those seeking out the intervention similar privileges as those seeking sexual assault treatment (meaning, providing the intervention without the necessity of Command notification or with Restricted and Unrestricted reporting options). The telephone delivery also makes this intervention amenable to delivery to hard to reach or hard to service (with regard to staffing behavioral health providers) installations. It has the potential to be implemented Army wide

through a central call center or potentially an existing call service such as Military One Source or the Veterans Suicide hotline. Future research should evaluate the pros and cons of various implementation delivery options.

With regard to other findings – this trial was the first to report high levels of synthetic cannabis among military personnel who were abusing substances. Additionally, this study found that synthetic cannabis is indeed a drug of abuse, with high rates of synthetic cannabis dependence reported among those personnel who were using it. Soldiers also perceived synthetic cannabis to be a drug that is more often used by military personnel than civilians. This finding has specific implications for prevention messaging and interventions. Overall, these findings highlighted the need for the military to continue monitoring the use of this drug and the need for practitioners working with military personnel to specifically assess for use of synthetic cannabis.

Normative misperceptions of substance use were found to be prevalent within the sample. Military personnel overestimated the amount other military personnel drank and the percentage of military personnel who engaged in heavy episodic drinking. Their own drinking was associated with misperceptions of other military personnel drinking behavior, but not their perceptions of civilian drinking norms. Results provide foundational support for the use of military specific normative feedback as a potential intervention strategy. To this end, we have submitted a grant to evaluate a brief, computerized personalized normative feedback intervention to be used with military personnel. It is currently under review at CDMRP.

The Check-Up model's success in the military setting also led to the development of and funding for applying this model to military personnel who are experiencing PTSD but not seeking treatment. The proposed study will develop a 3 session intervention for military personnel experiencing PTSD but not seeking treatment to weigh their options, consider their symptoms and the cost of not seeking treatment in an effort to increase treatment entry.

A no cost extension year allowed us to conduct additional activities that were directly related to dissemination and implementation of the MET intervention. Findings from this work will only be valuable in the future if the intervention model is utilized within the military system. To this end, we were able to answer (as best we could post-hoc) a common question raised by leadership regarding cost of the intervention. Additionally, we created materials that can be used by providers to be trained in and implement the intervention within their systems and have made those materials available.

6. PUBLICATIONS, ABSTRACTS, AND PRESENTATIONS:

Lay Press (describing the WCU and/or its findings):

Television appearance:

King 5 "New Day Northwest"

Radio interviews:

November 11, 2016, KNKX, Seattle, WA

May 13, 2014, KIRO, Seattle, WA

May 14, 2014, KOMO, Seattle, WA

May 14, 2014, KCSN, Northridge, CA

May 15, 2014, KUOW, Seattle, WA

Peer-Reviewed Scientific Journals:

Walton, T. O., Walker, D. D., Kaysen, D. L., Roffman, R. A., Mbilinyi, L., & Neighbors, C. (2013). Reaching soldiers with untreated substance use disorder: Lessons learned in the development of a marketing campaign for the warrior check-up study. *Substance use & misuse*, *48*(10), 908-921. DOI: 10.3109/10826084.2013.797996

Walker, D., Neighbors, C., Walton, T., Pierce, A., Mbilinyi, L., Kaysen, D., & Roffman, R. (2014). Spicing up the military: use and effects of synthetic cannabis in substance abusing army personnel. *Addictive behaviors*, *39*(7), 1139-1144. DOI: 10.1016/j.addbeh.2014.02.018

Neighbors, C., Walker, D., Rodriguez, L., Walton, T., Mbilinyi, L., Kaysen, D., & Roffman, R. (2014). Normative misperceptions of alcohol use among substance abusing army personnel. *Military Behavioral Health*, *2*(2), 203-209. DOI: 10.1080/21635781.2014.890883

Walker, D. D., Walton, T. O., Neighbors, C., Kaysen, D., Mbilinyi, L., Darnell, J., Rodriguez, L., & Roffman, R. A. (2016). Randomized trial of motivational interviewing plus feedback for soldiers with untreated alcohol abuse. *Journal of Consulting and Clinical Psychology*. Advance online publication. http://dx.doi.org/10.1037/ccp0000148

Invited Articles:

Walton, T.O., & Walker, D.D. (in press). Synthetic Marijuana Use in the United States Military. In J. Stogner, B. Miller, & D. Khey (Eds.), *Novel and Synthetic Drugs: Emerging Issues, Legal Policy and Public Healt*h. CRC Press, Taylor & Francis.

Abstracts: None to report

Presentations made during the last year (Academic):

Walker, D.D., Walton, T.O., Neighbors, C., Kaysen, D., Mbilinyi, L., & Roffman, R. (2015, October). *Warrior Check-Up: Attracting Substance Abusing Soldiers to Voluntarily Take Stock of Their Use: Preliminary Outcomes of a MET Intervention.* Paper presented at the Addiction Health Services Research Conference 2015, Marina del Rey, CA.

Walker, D., Walton, T., Kaysen, D., Neighbors, C., Mbilinyi, L., & Roffman, R. (2015, November). *Motivating Treatment Engagement among Active Duty Army Personnel with Co-morbid Substance Abuse Disorder and PTSD: Applications from the Warrior Check-Up.* Paper presented at the International Society for Traumatic Stress Studies Annual Meeting, New Orleans, LA.

Presentations made during the last year (Military):

Walker, D. (2016, May). *Warrior Check-Up: Review of findings.* US Army Installation Management Command and Army Resiliency Directorate (ASAP site visit/review). Joint Base Lewis-McChord, WA.

Walker, D. (2016, August). *Warrior Check-Up: Review of findings.* Department of Behavioral Health, Madigan Army Medical Center. Joint Base Lewis-McChord, WA.

Walker, D. (2016, September). *Warrior Check-Up: Motivation treatment seeking and behavior change by untreated military personnel.* CDMRP In-Process Review. Fort Detrick, MD.

Walker, D. (2016, September). *Warrior Check-Up: Review of findings and possibilities for dissemination.* National Center for Telehealth and Technology. Joint Base Lewis-McChord, WA.

7. INVENTIONS, PATENTS AND LICENSES: Nothing to report.

8. REPORTABLE OUTCOMES:

In addition to the papers and presentations listed above in Section 6, the primary reportable outcome of this study is a clinical manual describing the motivational enhancement intervention found to be efficacious in this trial. The intervention employs a Personalized Feedback Report (PFR) to be reviewed during the clinical session that is based on an assessment completed prior to that session. These products – the manual, assessment, and PFR template – can be found in the appendices of this report as Attachment C.

9. OTHER ACHIEVEMENTS: Nothing to report

10. REFERENCES: Not Applicable

11. APPENDICES:

Appendix A: ____ Study Protocol (includes questionnaires, recruitment materials, & manuscripts

Appendix B: ____ Clinical Manual

Appendix C: ____ Offline Personal Feedback Creation

C1: _____ Assessment Instrument

C2: _____ PFR Creation Instructions

C3: _____ PFR Template

Appendix D: ____ Cost Analysis

Motivating Treatment Seeking and Behavior Change by Untreated Military Personnel Abusing Alcohol or Drugs:

The Warrior Check-Up

PROTOCOL

Contents

APPENDICES

Warrior Check-Up Protocol

1 Overview & Rationale

1.1 Abstract

***Importance*.** Substance use disorders are prevalent in the military and are a major public health concern. Although efficacious interventions exist, few seek treatment. Army specific barriers to substance abuse treatment include treatment being recorded on health records, command being notified of participation and perceptions that seeking treatment would interfere with promotion or retention in the military.

***Objective*.** To evaluate a telephone delivered motivational enhancement therapy intervention designed to attract self-referral and reduce substance use from active duty military with untreated substance use disorder.

***Design*.** A randomized controlled trial enrolled 242 Army personnel with substance use disorder recruited from October 2010 to January 2014. Participants were assessed at baseline and at 3 and 6-month follow-ups.

***Setting*.** A large West Coast Army installation.

***Participants*.** Active duty Army personnel who met DSM-IV criteria for substance use disorder who were not engaged in treatment.

***Interventions*.** One session of telephone delivered motivational enhancement therapy or substance abuse education.

***Main Outcome Measures*.** Primary outcomes included number of drinks per week, substance use disorder symptoms and consequences, and treatment seeking behavior.

***Results*.** Generalized linear models were used to test group differences in drinking behaviors and substance use problems. Results indicated that all participants significantly reduced their drinking over time. Participants receiving the motivational enhancement intervention reduced drinking significantly more than participants in the control condition. Similarly, participants in the experimental condition lowered rates of substance dependence diagnosis significantly more than control participants at the 6-month assessment. Substance abuse treatment-seeking significantly increased for both conditions.

***Conclusions*.** Advertising an opportunity to talk confidentially about substance use elicited voluntary referral to an intervention from soldiers with untreated substance use disorders. This novel adaptation of motivational enhancement therapy shows promise for decreasing drinking and substance dependence among this high risk sample and may complement existing treatment services provided by the Army.

1.2 Investigators

Investigator	Role	Affiliation	Period of Involvement
Denise Walker, PhD	Principal Investigator	Research Assistant Professor, University of Washington School of Social Work	September 2009 -- Ongoing
Roger Roffman, DSW	Co-Investigator	Professor Emeritus, University of Washington School of Social Work	September 2009 -- July 2014
Lyungai Mbilinyi, PhD	Co-Investigator	Research Associate Professor, University of Washington School of Social Work	September 2009 -- December 2014
Clayton Neighbors, PhD	Co-Investigator	Professor, University of Houston Department of Psychology	September 2009 -- Ongoing
Debra Kaysen, PhD	Co-Investigator	Professor, University of Washington Department of Psychiatry	November 2009 -- Ongoing

1.3 OBJECTIVES

This Phase II study developed and tested a brief motivational enhancement intervention for substance abusing military personnel who were not engaged in treatment at the time of recruitment.

The intervention was designed to prompt:

(a) a willingness to participate voluntarily in a self-appraisal of substance abuse behavior,

(b) treatment seeking or engagement in a self-help program, and

(c) reductions in the abuse of alcohol or other drugs.

The high prevalence and seriousness of substance abuse among United States military personnel requires the development and evaluation of innovative behavior change intervention strategies. To address the needs of this population, this study built on promising findings in two areas of inquiry: brief interventions in the treatment of addictive disorders that target individuals who are contemplating change, and telephone service delivery in overcoming barriers to reaching untreated populations. This study evaluated this intervention's efficacy in reaching untreated and substance abusing military personnel and motivating behavior change and treatment seeking.

This study was predicated on the following premises: (a) a substantial number of military personnel are abusing substances; (b) rates of substance abuse are higher among recently deployed military personnel, (c) a large percentage of these individuals remain untreated by SA counseling programs; (d) a marketing campaign can be designed to motivate these individuals to seek an opportunity to "take stock" of their behaviors and their behavior change options; (e) offering an anonymous service - delivered entirely by telephone - will reduce barriers (e.g., perceived fear of the consequences of being identified to authorities, fear of substance abuse effecting their military career) to the voluntary initiation of contact with the proposed study; and (f) the study's motivational enhancement intervention can effectively motivate individuals to take additional steps in the direction of ending substance abuse.

1.3.1 Specific Aims

Specifically this study aimed to:

(1) manualize participant recruitment mechanisms (e.g., newspaper and radio advertisements, public service announcements, news releases, culturally-specific publicity mechanisms for events, flyers and brochures to be disseminated to human services agencies, and an in-service training protocol for health and social service agency settings);

(2) develop and implement a motivational enhancement intervention for delivery by telephone to military personnel who are engaging in substance abuse and are not in treatment;

(3) evaluate its efficacy in promoting treatment seeking and engagement, and

(4) assess its impact on alcohol and drug use outcomes.

1.3.2 Hypotheses

H1. Individuals receiving the brief motivation enhancement intervention will reduce their drinking and drug use and will have fewer alcohol and drug related problems at follow-up relative to participants in the comparison condition.

H2. Individuals receiving the brief motivation enhancement intervention will report more treatment seeking behaviors at follow-up relative to participants in the comparison condition.

H3. The impact of the intervention on drinking and drug use; alcohol and drug related problems; and treatment seeking at six-month follow-up will be mediated by increased readiness to change and reduced misperceptions of social norms at three-month follow-up (both of which will be targeted by the intervention).

1.4 BACKGROUND & SIGNIFICANCE

The following is the background section submitted in the original grant application.

Substance Use is associated with serious health and psychological effects. The National Epidemiological Survey on Alcohol and Related Conditions (NESARC) surveyed a nationally representative sample of 43,093 adults (18 year old or older) via telephone during 2001-2002 (Grant, Moore, Shepard, & Kaplan, 2003). Results from the study indicate that approximately 20 million people in the US population experienced some type of substance use problem during the past year with alcohol being the most commonly abused substance. NESARC studies have also shown that those with a substance use disorder are more likely than others to experience mood, anxiety, and personality disorders (Grant et al., 2004b; Grant et al., 2004c; Grant et al., 2005; Huang et al., 2007;Wu & Howard, 2007). Although these studies do not specifically address causality, it is clear that having a substance use disorder puts you at higher risk for additional psychological problems.

Substance abuse does not only affect the user, but the entire family. Recent NESARC data showed that women whose partners had alcohol use problems were more likely to experience victimization, injury, mood disorders and being in worse health than women whose partners did not abuse alcohol (Dawson, 2007).

The health and well-being of military personnel, and consequently the capacity for optimal functioning of military units, are compromised by the abuse of alcohol and/or other drugs (Bray, Marsden, Herbold, & Peterson, 1992). Among military personnel, increased illnesses and days of hospitalization are associated with heavy alcohol use and the use of illicit drugs other than marijuana (Marsden, Bray, & Herbold, 1988). Other adverse consequences are reductions in work productivity and performance deficits (Bray, Marsden, Guess, Wheeless, Iannacchione, & Keesling, 1988).

Nine self-report cross-sectional surveys have been administered to active-duty service members worldwide since 1980 by the Department of Defense (Bray, Hourani, Rae Olmstead, Witt, Brown, Pemberton et al., 2006). Among the findings are that illicit drug use among military personnel declined significantly and substantially between 1980 and 1998 and remained low. In contrast, heavy alcohol use decreased in the mid-1980s, remained stable from 1988 to 1998, then increased significantly between 1998 and 2002, and remained stable in 2005. In this period, the highest increase occurred among Army personnel. In 2005, the prevalence rates of recent heavy alcohol use among military personnel less than twenty years of age and those between 20 and 25 were 21.3 and 29.7, respectively (Bray & Hourani, 2007). Across all ages, more than one in six members of the military in 2005 was likely to be a heavy drinker.

While 15.3% of civilians between the ages of 18 and 25 were current heavy drinkers in 2005, the corresponding rate for service members was 27.3%. Moreover, among service members overall, 12.3% have symptoms of alcohol dependence, and loss of productivity in the past year is reported by 17.3% (Fernandez, Hartman, & Olshaker, 2006).

A number of factors may increase the risk for alcohol and/or other drug abuse among members of the military. Among them are prolonged separation from family and friends, working in hazardous environments, a pro-drinking military workplace culture, and the high numbers of young males who are newly experiencing independence from home and family (Fernandez, Hartman, & Olshaker, 2006). Rates of heavy drinking are higher among those personnel who have been deployed in the past 3 years. Heavy drinking rates were found to be 26.6% for personnel deployed within the last 12 months and 8.7% for those deployed more than 36 months ago, suggesting deployment status is a risk factor for alcohol abuse (2005 Department of Defense Survey of Health Related Behaviors Among Military Personnel).

Behavioral interventions can lead to reductions in SA behaviors. Promoting voluntary self-referral to substance abuse treatment is clearly warranted. Recent meta-analyses of alcohol treatment indicate that a variety of interventions are efficacious in reducing alcohol use including motivational enhancement therapy, cognitive-behavior therapy, and the community reinforcement approach (Miller & Wilbourne, 2002; Miller, Walters, & Bennett, 2001). Similarly, efficacious interventions for illicit drug disorders have also been identified (Carroll, 1998; Budney, Stephens, Roffman , & Walker, 2008; Powers et al., 2008; Prendergast et al., 2002; Stanton & Shadish, 1997). Overall, substance abuse treatment reduces substance use.

While counseling can be effective, most substance abusers do not tend to voluntarily seek treatment. Moreover, military personnel may encounter more real and perceived barriers to seeking treatment. A substantial number of individuals with addictive disorders do not enter treatment. Recent findings from the National Survey on Drug Use and Health (2007) reported 22.3 million persons age 12 or older met criteria for abuse or dependence on alcohol or illicit drugs in 2007, with only 3.9 million seeking formal treatment or self-help during the past year for problems related to substances. Similarly, few military personnel have sought treatment services for alcohol or drugs. Among heavy alcohol users, only 14.9% had a history of substance abuse treatment since joining the military (2002 DOD Survey of Health

Related Behaviors). Most who are experiencing consequences in the early stages of problem development do not consider approaching formal treatment. Non-participation in treatment may involve several factors: lack of motivation or ambivalence, obstacles to access, stigma, and cultural barriers. Military personnel face additional barriers (perceived or real) to entering treatment including a fear of jeopardizing their career, disciplinary action for use of illicit substances, or discharge. A 1988 Worldwide Survey indicates most military personnel believe that disciplinary action would be taken against a person seeking alcohol treatment (58%) or seeking drug treatment (60.9%), despite the official military policy of supporting personnel for engaging in help seeking (as cited in Bray, Marsden, Herbold, & Peterson, 1992).

The SA field is increasingly focusing on developing interventions for those at early stages of readiness for change. A rapidly growing empirical literature is emerging with a focus on testing interventions for individuals who are contemplating but not yet committed to behavior change (Walker, Roffman, Picciano, & Stephens, 2007). The stages of change model (SCM) has greatly influenced intervention design (Prochaska & DiClemente, 1983; DiClemente & Prochaska, 1982, 1985). While there are numerous challenges to the empirical basis for a linear progression in stages of change, the concepts remain useful for heuristic purposes in considering how to design an intervention so that it is tailored to fit well with the client's motivational level. New studies among military samples suggest motivation to change behavior is an important factor to focus on. Low motivation has been linked in military SA treatment seekers to treatment drop-out and discharge for non-compliance (Mitchell & Angellone, 2006). Conversely, stage of change has been found to improve with SA treatment in a military sample (Mitchell, Angellone, & Cox, 2007).

Motivational enhancement therapy (MET), a brief intervention modality, has shown promise in promoting treatment entry and enhancing both retention and successful outcomes. MET is an intervention modality involving an assessment interview and personal feedback of assessment results, with the interviewer utilizing motivational interviewing skills. The Drinker's Check-Up (DCU) is an early example. The DCU was developed to reach and motivate problem drinkers into action (Miller & Sovereign, 1989). The intervention was promoted via news media as a free assessment and feedback service for drinkers who wanted to find out whether alcohol was harming them. It was built on the premise that once an individual had information regarding the personal impact of alcohol use, he or she would be better able to make decisions regarding change. Recruitment announcements emphasized that the DCU was not part of any treatment program, not intended for "alcoholics," and that it would be "up to the individual to decide what, if anything, to do with the feedback" (Miller, Benefield, & Tonigan, 1993). Interestingly, most of the individuals who sought out the DCU were similar to clients already in treatment on measures of alcohol abuse and related problems (Miller, Sovereign, & Krege, 1988; Miller et al., 1993).

In the initial DCU session, a structured interview and questionnaires are completed along with a brief neuropsychological assessment. The feedback given to the client in the second session, with the clinician employing motivational interviewing skills (Miller & Rollnick, 2002), is largely normative and risk-related in nature. It includes a comparison of the amount the client drinks per week with the amount an average American drinker consumes per week, the peak blood alcohol content of the client during a typical week of drinking and during more heavy periods, the extent of family risk for alcohol problems, and the severity of problems associated with the client's alcohol use related to research norms and cut-points. When serum chemistry or neuropsychological data are used, they are presented in relation to standard cut-points for identifying organic pathology.

In a number of controlled trials, MET interventions with substance abusing populations have shown promise in several respects: **reducing substance use among individuals seeking substance abuse treatment** (Aubrey, 1998; Baker, Boggs, & Lewin, 2001; Bien, et al., 1993; Carey et al., 1997; Daley, Salloum, Zuckoff, Kirisci, & Thase, 1998; Saunders, Wilkinson, & Phillips, 1995; Stephens, et al., 2000; Stotts, Schmitz, Rhoades, & Grabowski, 2001); **increasing treatment attendance** (Aubrey, 1998; Davis, Baer, Saxon, & Kivlahan, 2003; Swanson, Pantalon, & Cohen, 1999); **increasing active participation in the treatment process** (Brown and Miller, 1993; Carey, et al., 2002; Daley & Zukoff, 1998; Longshore, Grills, & Annon, 1999; Martino, Carroll, O'Malley, & Rounsaville, 2000; Swanson, Pantalon, & Cohen, 1999); and **reducing attrition** (Daley & Zukoff, 1998; Lincourt, Kuettel, & Bombardier, 2002; Martino, Carroll, O'Malley, & Rounsaville, 2000; Swanson, Pantalon, & Cohen, 1999). Not all of the findings of MET trials with substance abusers have been positive, however. Donovan, Rosengren, Downey, Cox, & Sloane (2001) found no effect on treatment entry, retention, or outcome in clients on a waiting list for drug treatment. In two other trials (Booth, Kwiatkowski, Iguchi, Pinto, & John, 1998; Schneider, Casey, & Kohn, 2000), there were no differential effects on treatment entry when MET was compared with an alternative approach. Finally, Miller, Yahne, & Tonigan (2003) reported no effects on drug use outcomes when MET was added to inpatient or outpatient treatment. Still, a recent meta-analysis of 32 randomized controlled trials of MET for

alcohol and 13 controlled trials for illicit drugs concluded that MET is an effective intervention for alcohol and other drugs (Hettema, Steele, & Miller, 2005).

Overall, these findings offer considerable support for continuing research focusing on MET interventions with non-treatment seekers for the purpose of increasing substance abuse treatment entry, engagement and retention. They also raise numerous questions concerning the specific populations (e.g., alcohol vs. cocaine vs. opiate vs. marijuana-dependent clients) and contexts (e.g., MET as an add-on to treatment vs. MET as a stand-alone catalyst for untreated individuals) in which MET will be effective. Brief interventions, including MET interventions have been recommended for use with the military (Fernandez, Hartman, & Olshaker, 2006). However, little empirical work has been devoted to the development of MET interventions with military personnel.

In summary, adapting the "check-up" variant of motivational enhancement therapy for application with military personnel is warranted for three key reasons: (1) permitting anonymous participation through a telephone-delivered or Web-based intervention has the potential of overcoming a major barrier to treatment-seeking among those who are concerned about their behavior, i.e., stigma and apprehension that being identified as having an addictive disorder will negatively impact one's military career; (2) the nature of the check-up intervention as an opportunity to take stock of one's drinking/drug use without being pressured to change, and the use of an empathic counseling style in its delivery, have the potential of attracting voluntary participation among individuals who would otherwise be deterred by concerns of being judged negatively and of being pressured to enter treatment and commit to abstinence; and (3) if the check-up is efficacious in voluntarily recruiting untreated service personnel with a substance abuse disorder and promoting treatment engagement, support group participation, or self-initiated behavior change, protocols for disseminating this low cost and brief intervention for use with deployed military can readily be developed and evaluated.

1.5 SETTING

Prior to application for funding, study Investigators established a relationship with Army Substance Abuse Program (ASAP) leaders at Joint Base Lewis-McChord (JBLM) in Washington State. All participants were recruited from JBLM, but were permitted to continue participating regardless of deployment to a different base or separation from the military. Per DoD regulation, participants were not permitted to participate during deployment to a combat zone, including Iraq, Afghanistan and Kuwait.

Participants completed all study activities over the phone, with study staff (Assessors and Counselors) located at the Innovative Programs Research Group offices in the University District of Seattle Washington.

1.6 APPROVALS

Prior to initiation of recruitment and data collection efforts, all necessary approvals were confirmed.

1.6.1 Garrison

Garrison Commander, COL Thomas H. Britain, provided a letter of support granting access to the installation for study activities and permission to recruit service members stationed there. Upon assuming the role of Garrison Commander in August 2012, COL H. Charles Hodges, provided another letter to affirm his continued support of study activities. See Appendix 1.1 for letters of support.

1.6.2 Human Subjects Review

The University of Washington's Institutional Review Board (UW IRB) approved the study and served as its primary oversight body. The Human Research Protection Office at the U.S. Army Medical Research and Materiel Command also approved trial activities after reviewing UW IRB documentation. COL Paul J. Amoroso, Chief of the Department of Clinical Investigation at Madigan Army Medical Center (MAMC) on Joint Base Lewis-McChord provided a letter of support confirming that the involvement of MAMC in study activities was limited and therefore did not require review by the MAMC IRB. See Appendix 1.2.

1.6.3 Certificate of

Prior to participant recruitment, study Investigators applied for and received a certificate of from the National Institutes of Health and the National Institute on Drug Abuse. Certificate number DA-10-128 was issued on 2 August 2010. See Appendix 1.3.

1.6.4 Registration with Clinical Trials.gov

The study is registered at ClinicalTrials.gov. Identifier: NCT01128140

2 STUDY DESIGN

2.1 TIMELINE

YEAR 1: PROJECT DEVELOPMENT AND PREPARATION. The initial 12-month period (2010) was devoted to developing protocols and manuals concerning: (1) the motivational enhancement, and educational interventions, (2) project marketing, (3) initial eligibility screening and the obtaining of informed consent, (4) referral procedures for callers who were ineligible or choose not to enroll; (5) baseline data collection, (6) post-intervention data collection, (7) assessment and intervention quality assurance, and (8) data collection and safety plan development. A major emphasis in this phase involved working with collaborators and focus groups to enhance the study's cultural competence.

YEARS 2- 4: EFFICACY STUDY. Participant recruitment began in October of 2010 and ended in February of 2014. The originally intended recruitment period of 36 months was extended to 40 months in order to reach the target sample size of 240.

YEAR 5: FINAL DATA COLLECTION. With the final participants recruited in February 2014, follow-up assessments continued until September 2014 at which time final data entry and cleaning began.

YEAR 6: DATA ANALYSIS AND DISSEMINATION. The study was granted a no-cost extension for a sixth year which focused on data analysis and dissemination of findings.

2.2 RECRUITMENT

2.2.1 Population & Sample

The focal population for this study was active-duty Army personnel with substance use disorder who were not enrolled in treatment. Study Investigators developed a marketing campaign to elicit voluntary, self-referred participation in the study by members of this population with a target of 240 participants. The demographic characteristics of the approximately 30,000 soldiers stationed at JBLM were expected to mirror those of the larger Army population.

2.2.2 Recruitment Period

Two-hundred and forty-two participants were enrolled in the study between October 2010 and February 2014.

2.2.3 Recruitment Campaign Development

In addition to securing IRB approval and developing study and intervention procedures, the first year of the project focused on developing a recruitment campaign relevant to military culture and appealing to the target population of those with untreated substance use disorder. Recruitment campaign development was an iterative process that began with a series of three focus groups, each with a specific set of stakeholders: (1) military behavioral health providers at JBLM, (2) soldiers who had completed substance abuse treatment or who were currently enrolled, and (3) soldiers with untreated substance use disorder – the target population of the main trial. IRB approval for this phase of the trial was established before conducting the focus groups, which were held at JBLM and structured in such a way to protect the of participants.

The first group reviewed initial drafts of recruitment materials. Changes were made based on this initial feedback before presenting to the second group, and this process was again repeated for the third group. For a complete discussion of this process and the outcomes of focus group conversations, please see the article titled: "Reaching Soldiers with Untreated Substance Use Disorder: Lessons Learned in the Development of a Marketing Campaign for the Warrior Check-Up Study" and located in Appendix 5.1.

Responding to ongoing feedback from participating soldiers and JBLM staff about ads, and in an attempt to maintain interest in the project, staff developed new ad campaigns every six to nine months during the duration of the recruitment period.

2.2.4 Print Media

Examples of recruitment print designs located in appendix 2.1 were formatted for a variety of media styles and sizes including, but not limited to: 3'x5' posters, 11"x14" posters, 8.5"x5.5" flyers, and 2"x3" ad cards. A series of brochures were also widely distributed, and are included in appendix ###.

2.2.5 Ad Placement

With the permission of Garrison Command and after securing additional permission from administrators or facility managers, study staff placed print advertisements in the following locations at JBLM:

- Dining facilities
- Recreation facilities
- Computer labs
- Libraries
- Gyms
- Locker rooms
- Restrooms
- Processing centers
- On-post bowling alley
- On-post skating rink
- Madigan Army Medical Center hallways
- Waiting areas at various Madigan clinics
- Family medicine clinics outside of Madigan
- On-post dental office waiting rooms
- Bars located on post
- On-post community centers
- Education centers
- Bars and restaurants in the community surrounding JBLM
- Communal areas within Units
- Coffee shops on post and in the surrounding community

Staff monitored ads at each of these locations regularly to ensure that they had not been defaced or removed. While considerable effort was made to explain the study and its permissions to administrators and facility managers, print media was frequently mistakenly removed by facility staff.

2.2.6 Promotional Items

Study staff also developed a variety of promotional items that featured the study's logo, recruitment phone number and as much other information about the project that could be included on each item. These materials, it was hoped, would promote "brand recognition" of the study, spark conversation about it, and get the phone number into as many hands as possible. Promotional items included the following, some of which can be seen in Appendix 2.2.

- Flying discs (aka, "Frisbees")
- Key chains
- Tote bags
- Bouncing balls
- Writing pens
- Hand-grip exercisers
- Playing cards
- Bottles of water
- Hand towels (distributed at gyms)

2.2.7 In-Person Recruitment

Study staff regularly presented at briefings, attended on-post events and met with behavioral health providers to disseminate information about the study and its recruitment efforts.

2.2.7.1 Distribution to service providers

During the first half of the study, staff reached out to various behavioral health providers at JBLM to inform about the study and invite them to refer the soldiers with whom they work to the project. During the latter half of the

recruitment period, staff periodically checked in with those they had met to refresh their memory and ask if they needed more recruitment materials, such as ad cards, brochures or flyers. Groups with whom we met included:

- Chaplains
- Social workers at family medical clinics
- Wounded Warrior Transition Battalion staff
- A monthly meeting of behavioral health leaders
- Madigan Social Work department

2.2.7.2 ASAP Briefings

Investigators and staff worked closely with leaders and staff at the JBLM Army Substance Abuse Program (ASAP). Members of the ASAP Prevention team provided regular briefings to Soldiers about their services and included information about WCU when doing so. When possible, a member of the study staff would join ASAP staff for these briefings; however, this was not often possible due to the unpredictable scheduling of these briefings. Whoever presented information at the briefings also distributed print materials.

2.2.7.3 Special Events

Staff attended one to two events at JBLM per year, typically hosting an informational booth with recruitment materials including print media and promotional items. Many events were hosted by Morale Welfare and Recreation (MWR), though access to these were somewhat limited without paying a prohibitive fee. Events attended include: Safety Stand-Down, Suicide Stand-Down, Independence Day Celebration, & Oktoberfest.

2.3 SCREENING

2.3.1 Anonymous or Enrollment

A Certificate of issued by the NIH provided full protection of participants' personal information and collected data. Further, participants could choose to enroll in the study either confidentially or anonymously. Assessors worked with those who chose to enroll anonymously and therefore not provide contact information to determine a strategy for receiving study materials and incentive payments. Options for this included reimbursing participants for establishing a PO Box, sending materials to a non-resident address designated by the participant, and/or issuing compensation in the form of a blank money order instead of a check. (See section 2.3.4 for a schedule of incentive payments.) Participants were also allowed to designate how and when the study could contact them.

2.3.2 Inclusion & Exclusion Criteria

2.3.2.1 Inclusion

Participants met the following criteria for inclusion in the trial:

(1) Current (past-90 day) substance use disorder

(2) No current enrollment in substance abuse treatment

(3) Current active-duty status in the US Armed Forces

2.3.2.2 Exclusion

Callers who met any of the following criteria were excluded from participation in the trial:

(1) Upcoming deployment to a war zone or other area that would preclude completion of all follow-up assessments

(2) Evidence of psychosis

(3) Non-fluency in English

2.3.3 Screening

Callers completed a screening questionnaire over the phone with a study Assessor to determine eligibility based on the criteria discussed above. The screening took approximately 15 to 20 minutes, and most callers were informed of their eligibility during the call. On occasion, the study Assessor needed to discuss a participants' responses with the Project Director or a study Investigator prior to determining eligibility. This was done immediately and the Assessors called the respondent back within 30 minutes to notify him or her of eligibility.

2.3.3.1 Consent

Immediately following introductions at a potential participant's first call, staff assured callers that participation in the trial was or anonymous, and voluntary. Staff then asked callers to share what led them to call in and what questions they may have about the project. Next, staff administered the "Consent for Screening" script (see Appendix 3.1) prior to administering screening measures. This script informed them that some questions that were to be asked were sensitive and personal, that they would not be financially compensated for the screen, and that its purpose was to determine eligibility for participation in the study. The informed consent protocols for participation in the main trial were completed following screening for those who were eligible. See section 3.2 below.

2.3.3.2 Screening Measures

* Appendix 4 contains all measures used in the study.

Marketing Exposure Questionnaire: Participants were recruited through a variety of marketing materials and events. The Marketing Exposure questionnaire asked participants how they heard about or were referred to the study, providing ongoing feedback about the success of various marketing strategies.

Demographics: This measure, created for this study, collected typical demographic variables, as well as military-specific characteristics and information on upcoming deployments.

Structured Clinical Interview for DSM-IV – Psychoactive Substance Use Disorder: This measure was used to diagnose alcohol and/or drug use disorder (abuse or dependence). (First, Spitzer, Gibborn, & Williams, 1995)

Structured Clinical Interview for DSM-IV – Psychosis Screen: The SCID Psychotic Screening Module (First, Spitzer, Gibbon & Williams, 2002) is specifically designed for screening out research participants with psychotic disorders. It identified individuals who could not provide proper informed consent due to psychosis (First et al., 1995).

Treatment Seeking Behaviors Questionnaire: This questionnaire was developed to assess specific participant behaviors and cognitions that would support seeking SA treatment. Specific questions concerning treatment-seeking attitudes, intentions, and behaviors (i.e., called an agency for an appointment, requested that printed information be sent, went to an agency to inquire, applied for acceptance in a treatment program, attended at least one session of treatment, withdrew from treatment) were incorporated.

2.3.3.3 Ineligible Callers

Callers who completed screening but were deemed ineligible were offered the opportunity to speak with a study counselor to discuss their substance use concerns and treatment options. Assessors also offered to send these callers information about local civilian, military, and online treatment options.

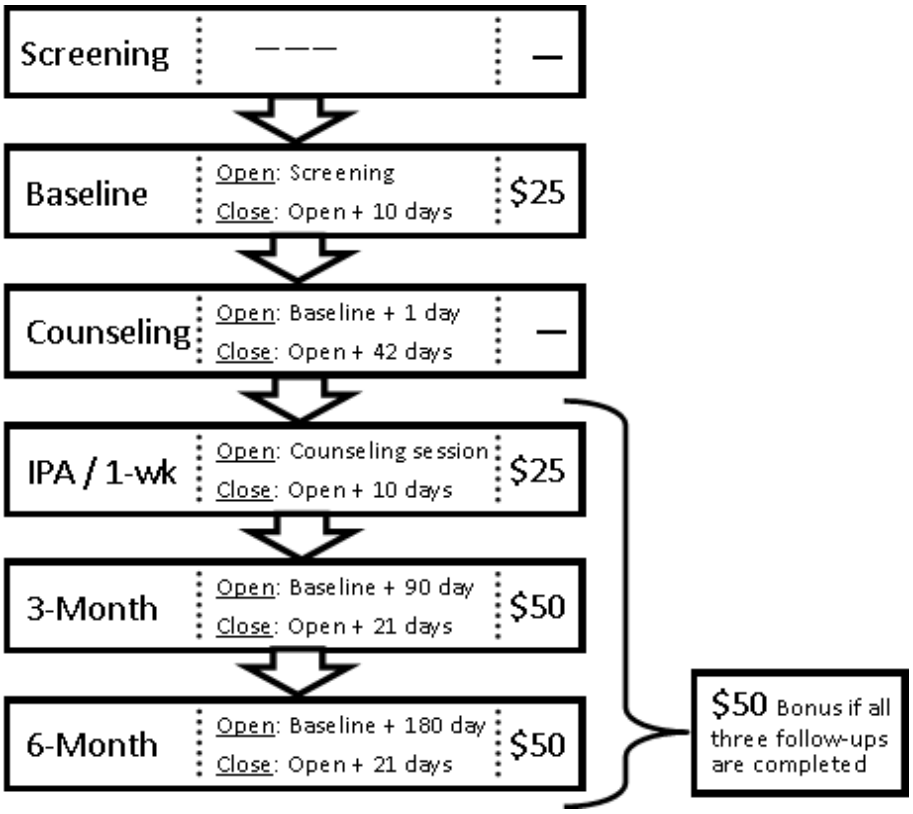
2.3.3.4 Eligible Callers

Callers deemed eligible at screening then completed the informed consent process for participation in the trial. See section 3.2 for details of the consent process. Next, the assessor scheduled the baseline assessment with the participant to take place within the following 10 days. After completing the baseline, participants were enrolled in the study and randomized to a study condition (see section 2.4.3 below).

2.4 PROCEDURES

2.4.1 Timeline & Incentives

The illustration to the right includes the completion window and incentive payments for each time-point in the study.



2.4.2 Baseline Assessment

2.4.2.1 Measures

Social Desirability Scale: The eight item short version of the Marlowe-Crowne Social Desirability Scale (M-C 2(8)) was used to assess participants' social desirability during the data collection/assessment process. This measure has previously demonstrated acceptable reliability (alpha=.77; Ray, 1984).

General Causality: This measure assessed three orientations: autonomy, control and impersonal (Deci & Ryan, 1985)

Small Unit Identification: This questionnaire was created to explore social identity as a motivation for military reservists' commitment to their service (Griffith, 2009). The measure has two 4-question subscales: identification with fellow soldiers and with unit leaders. For example, "Soldiers in my unit feel close to each other," and "My unit leaders are interested in my personal welfare." Using a 4-point Likert scale of "strongly disagree" (1) to "strongly agree" (4), both subscales have shown good psychometric properties (Cronbach's alphas of .86 for fellow soldier subscale and .85 for the leaders scale). However, because the Warrior Check-Up is interested in the topic of ambivalence, a 5-point Likert scale was used to include a neutral response category. This modification will be evaluated at the study's conclusion.

Post-Deployment Social Support: A section of the Deployment Risk and Resilience Inventory, this measure assessed the participants' perceptions of they support he or she received following their most recent deployment. Unlike the Small Unit Identification questionnaire, this measure focuses on support from family or friends rather than the military (Vogt, Proctor, King, King, & Vasterling, 2008).

Customary Drinking & Drug Use Record: The CDDR was developed to assess current (past 3 months) and lifetime measures of several alcohol and drug-related domains among adolescents including level of involvement, withdrawal characteristics, psychological/behavioral dependence symptoms, and negative consequences. The CDDR has also been used with young adults and middle-age adults with success. It has demonstrated solid psychometric properties (Brown, Myers, Lippke, Tapert, & Stewart, 1998).

Drinking Norms Rating Form: Perceived drinking and drug use norms were assessed using a modified version of the Drinking Norms Rating Form (Baer, Stacy, & Larimer, 1991). Participants were asked to think separately about the drinking and drug use norms of three populations: (1) other active-duty soldiers, (2) civilians generally, and (3) civilians of the respondent's same gender. For each population, respondents estimated typical drinking behaviors, including number of drinks per day, frequency of binge drinking, peak drinking occasion, etc. Participants also estimated the percentage of each population that had consumed various categories of drugs in the past year. This measure was amended to include questions about synthetic marijuana and MDPV ("bath salts").

Daily Drinking Questionnaire: This measure evaluated a participant's normal drinking pattern, by asking the respondent to think about a typical week and estimate the typical number of drinks he or she consumed each day of that week and over how much time, as well as peak alcohol use and binge-drinking patterns. (Collins, Parks, & Marlatt, 1985; Kivlahan, Marlatt, Fromme, Coppel, & Williams, 1990).

Modified Drinking Motives Questionnaire -- Revised: Validated as a reliable and valid measure with an undergraduate sample, the MDMQ assessed motivation for drinking with five subscales: social, coping-anxiety, coping-depression, enhancement & conformity (Grant, Stewart, O'Connor, Blackwell, & Conrod, 2007)

SOCRATES 8A & 8D: The Stages of Change Readiness and Treatment Eagerness Scale (Miller & Tonigan, 1996) was used to assess readiness for change in regards to participant alcohol and drug abuse. The SOCRATES is a 19-item questionnaire which asks the participant to rate on a five-point scale from strongly disagree to strongly agree how they feel about each statement in regard to their drinking or drug use. The responses to these 19 items are then used to create three scale scores: ambivalence, recognition and taking steps. These scales are indicators of their readiness to make changes in their alcohol or drug use behavior.

Short Inventory of Problems: This measure was adapted from the Drinker's Inventory of Consequences (Forcehimes, Tonigan, Miller, Kenna, & Baer, 2007) to assess consequences related to substance use. Questions included 22 items relating to consequences from drinking and drug use. Participants were asked to report if each consequence happened "Never", "Yes, in lifetime- Not in the past 90 days", or "Yes, in past 90 days". Six military specific items were added to the measure including "I got called up during off duty hours and reported to work drunk or high because of my drinking or drug use", "I have spent time in jail, stockade, or brig because of my drinking or drug use" and "I had a drop in my Physical Training Score because of drinking or drug use".

PCL-S: This17-item questionnaire assesses Criteria B, C, and D of the PTSD construct consistent with the DSM-IV. Participants rated how much they are bothered in the past month by each symptom on a 5-point scale ranging from "not at all" to "extremely." The PTSD Checklist (PCL) has high correlations (.92) with the CAPS (Clinician Administered PTSD Scale), the gold-standard interviewer-administered diagnostic measure of PTSD. Cronbach's alpha for the PCL-S was found to be high (.97) (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Weathers, Litz, Herman, Huska, & Keane, 1993).

PHQ-9: The Depression Module from the Patient Health Questionnaire *(a.k.a. PHQ-9)* is a widely used mental health disorder diagnostic tool. Respondents rated frequency of nine depressive symptoms over the past two weeks. With one question for each symptom outlined in the DSM-IV, the PHQ-9 offers diagnostic criteria for major depressive disorder as well as cut-points for three lower levels of depression. A large validation study of the measure (n=6,000) found the instrument to have high validity (Kroenke, Spitzer, & Williams, 2001)

GAD-7: From the Patient Health Questionnaire, this instrument is a seven-item screening measure for anxiety. Respondents rated the frequency at which they experience specific anxiety symptoms. A robust study (n=2149) found the measure to have high internal consistency (Cronbach $\alpha = .92$) and good test-retest reliability (intraclass correlation = 0.83). Scores on the GAD-7 are strongly correlated with multiple domains of functional impairment and provide a measure of symptom severity as well as a cut-off score (Cronbach's $\alpha = .89$; Spitzer, Kroenke, Williams, & Löwe, 2006).

SBQ-4: This brief 4-item questionnaire is validated to assess suicidal risk in clinical ($\alpha = .87$) and nonclinical ($\alpha = .76$) adult samples (Osman et al., 2001). Administered at baseline and each follow-up, this instrument measured

an important indicator of mental health as well as helping research staff to identify participants who may be in need of immediate intervention.

Life Goals Assessment: This instrument was key to the MET intervention. It asked participants to name three to five goals they had in any area of their lives, then to list them in order of importance. Next, participants were asked to use a 5-point Likert scale to rate the degree to which their current use of alcohol and/or drugs impact their ability to achieve each goal (from "very negatively" to "very positively"). Finally, they were asked to use the same scale to rate how much changing their current substance use behaviors would impact their ability to achieve each goal. Responses from this measure are included in the Personalized Feedback Report.

**Note:* In a future, repeated placebo-controlled trial of the Warrior Check-Up, this measure should be only administered to participants randomized to the treatment condition, as theory and anecdotal feedback suggest that this measure had substantial clinical effects.

2.4.3 Randomization & Blinding

After the baseline assessment, participants were randomly assigned to either the experimental or comparison condition. A computerized URN randomization program was be used to complete this task. This DOS-based utility program allowed study staff to enter pre-specified blocking factors that will assure equal distribution of key participant characteristics between the two study conditions.

2.4.3.1 Blocking Variables

Three variables were used for pre-randomization blocking to distribute key characteristics across conditions: severity of substance use disorder (abuse or dependence), gender, and military branch.

2.4.3.2 Blinding

To ensure that Assessors remained blind to treatment condition, the data manager, who would not be collecting any data, completed randomization procedures. At the end of Baseline, the Assessor completed a "randomization form" that included the participants' unique identification number and blocking variable data. The data manager then processed the randomization, recording the outcome in a database to which Assessors did not have access. The data manager then reported the assigned condition to the counselor who then created the PFR, contacted the participant to notify him or her of the assigned condition, and mailed the participant intervention materials. On occasions when the counselor was too busy to create the PFR and send the mailing, the assessor would create a mailing packet for each condition and give them both to the data manager who would then send out the one corresponding to the assigned condition.

2.4.4 Intervention Conditions

Both conditions were conducted via telephone and included review of materials that were mailed to the participant prior to the session. For a complete description of intervention protocols, see the Warrior Check-Up Clinical Manual

2.4.4.1 Motivational Enhancement Therapy (MET)

The experimental condition was an MET intervention adapted for an active-duty population. It includes review of a Personalized Feedback Report (PFR) with counselor who employed a motivational interviewing style. The session was designed to last 45-60 minutes.

2.4.4.2 Education

The education condition served as a matched-attention control – a 45-minute didactic session focused on education about alcohol and other drugs. At the end of the 6-month follow-up, assessors would open a sealed envelope containing the participants treatment condition. The assessor would then offer those assigned to the education condition the opportunity to receive the MET session if desired.

2.4.4.3 Counselor Checklist

Following each intervention session, the counselor completed the "Counselor Checklist" to self-assess quality of intervention delivery, fidelity to the protocol, use of motivational interviewing techniques and content coverage.

2.4.4.4 Fidelity

The study's clinical director reviewed every recorded session and provided weekly supervision regarding adherence to motivational interviewing principals and fidelity to the assigned condition. An independent coder was also hired to review a random selection of recorded (_ _ %) and code them according to the MITI scale.

2.4.5 Intervention Process Assessment (IPA)

Within a week of completing the intervention session, regardless of condition, participants completed a brief questionnaire by phone that assessed their perceptions of the intervention content and their interaction with the counselor.

2.4.6 3-month & 6-month Follow-Up Assessments

2.4.6.1 Measures

The following measures were first administered during either screening or baseline and were repeated at both follow-up time-points:

- SCID-Psychoactive Substance Use Disorder
- Treatment Seeking Behaviors Questionnaire
- Customary Drinking & Drug Use Record*
- Drinking Norms Rating Form
- Modified Drinking Motives Questionnaire
- Daily Drinking Questionnaire
- SOCRATES 8A
- SOCRATES 8D
- Short Inventory of Problems*
- PCL-S
- PHQ-9
- GAD-7
- SBQ-R

* Indicates questionnaires revised to only assess past 90-days at follow-up, as lifetime use data was collected at Baseline.

Discharge Questionnaire. This questionnaire was developed to assess whether participants had separated from active-duty service during the course of the study, as well as the manner and character of separation.

2.4.6.2 Fidelity

During the consenting process, Assessors sought permission to audio record all data collection and clinical calls. Participants were assured that recordings would only be used for "quality control" purposes, would only be listened to by study staff, and would be destroyed at the end of the trial. Repeated permission for recording was sought at the beginning of each call and participants were invited to revoke consent for audio recording at any time.

On a monthly basis throughout the study, either the Project Director or a Co-Investigator reviewed a selection of audio recorded data collection sessions. Sessions were chosen either at random or at the request of an Assessor

who wanted feedback on any specific call. Reviewers provided feedback on fidelity to measures as well as adherence to protocols for clinical deterioration.

2.4.6.3 Online Assessment

An online version of the follow-up assessments was created for participants who could not complete them by phone. Primarily, it was intended for soldiers who deployed overseas (to a non-combat area) during the course of the study and had difficulty scheduling due to time-zone difference and/or long-distance charges. The online version was also offered to participants who were having trouble scheduling the sessions for any other reason. Prior to closing a follow-up window on participants who had not yet completed their assessment, study staff offered the online version as a last resort to collect data.

The online assessment was identical to what participants would have completed over the phone, except for the SCID-Substance Use Disorder assessment which requires individualized follow-up questions and a degree of clinical judgment on the part of the assessor. In place of this, questions assessing substance abuse and dependence criteria from the National Survey on Drug Use and Health were used.

2.4.6.4 Retention Strategies

Study staff employed several techniques to limit attrition at follow-up. First, at the time of enrollment, assessors asked participants for contact information including address, phone numbers, and email addresses. Participants were invited to restrict how and when study staff contacted them via each of these avenues, as well as how they would prefer to be contacted. Assessors also asked participants to provide contact information for a "locator," someone who could help the study contact them if all other provided avenues at been exhausted. Assessors assured participants that providing this information was voluntary and that if the locator was called, no private information would be disclosed.

Staff mailed reminders to participants (if permitted) one week before their assessment windows opened, and reminders (call, text, and/or email) were given on the day prior to scheduled sessions. SMS text messaging was found to be the most successful method of reaching participants to schedule, reschedule and remind.

2.5 Data Analysis

2.5.1 Descriptive and preliminary analyses.

The statistical analyses plan began with examination of descriptive statistics and distributions of all outcome variables. In order to reduce the include of outliers we capped the average number of drinks at 100. This included eight participants at baseline who reported between 113 and 150 average drinks per week and three individuals at the 3-month follow-up who reported between 108 and 132 average drinks per weeek. No participants reported drinking more than 100 drinks per week at the 6-month follow-up.

We also examined frequency of drug use and found very low prevalence rates. Prevalence rates among participants for specific drugs included 12.4% for marijuana, 10.6% for synthetic marijuana, 18.6% for opiates/opioids (prescription misuse and illicit), and 22.7% for any other drug (e.g., MDMA, LSD). Given the relatively small number of participants who reported using substances and corresponding low statistical power, we chose to focus analyses on abuse, dependence, and consequences related to any drug use rather than drug use per se.

2.5.2 Examination of baseline differences between groups.

Initial differences in randomized groups can reflect a failure of randomization and is important to consider and interpretation of results. We therefore conducted a series of chi-square and difference-of-means tests to evaluate baseline differences between the treatment groups with regard to demographic, military, and clinical characteristics included in the table. None were evident.

2.5.3 Examination of differential attrition.

Group differences in attrition rates can result in faulty conclusions. For example, an intervention might erroneously appear to be effective if individuals drop out of the study at a higher rate in the intervention than in the control group, especially if attriters have more substantial substance use problems. We therefore examined whether or not attrition rates varied by group. Dichotomous variables were created indicating attrition at the three-month follow-up and at the six-month follow-up. Chi-square difference tests were conducted to determine whether or not attrition rates varied by group. They did not differ at either follow-up.

2.5.4 Examination of intervention attendance.

Group differences in intervention attendance can also effect conclusions. Although in the present work we used an intent to treat approach, we thought it important to evaluate whether attendance differed between intervention and control. We conducted a chi-square test to determine whether there were differences in rates of attendance between the intervention and control condition and found no significant difference.

2.5.5 Primary analysis approach for treatement effects

Analyses were based on intention to treat using all available data from participants. Statistical significance was attributed to p-values less than .05 using two-sided tests. Sample size was predetermined based on power analyses suggesting an initial sample of 240 with 83% retention (N=200) would yield adequate power to detect small to medium intervention effects31 (f2 = .02-.15) on univariate outcomes. We estimated .80 power to detect 4% change in post-treatment outcome variance attributed to the intervention. Analyses were conducted using either SPSS version 21 or SAS version 9.4.

Primary outcomes were predetermined and included (1) quantity of alcohol consumption (average number of drinks consumed per week capped at 100, and average number of drinking days per week), (2) frequency of drug use, (3) abuse and dependence criteria for alcohol and drugs, (4) alcohol- and drug-related consequences (SIP scores), and (5) treatment-seeking behaviors for substance use. As noted, the low frequency of drug use did not provide sufficient power for examination of this outcome.

General estimating equations were used as the primary analysis approach. The distribution of each outcome was evaluated for appropriate specification in the models. Alcohol consumption and alcohol- and drug-related consequences were postiviely skewed and most closely approximated by a negative binomial distribution. Meeting abuse and dependence criteria and engagement in treatment-seeking were specifed as binary (no = 0, yes = 1).

For each outcome, we first examined changes over time across all three time points for all participants. For example, drinks per week was examined as a function of time (coded 0, 1, and 2). Next, treatment effects were evaluated with follow-up outcomes examined as a function of time and treatment controlling for baseline values of the outcome. This analysis provides a test of differences between the intervention and control group during follow-up including both the three and six month assessments. Time by treatment interactions were examined in a subsequent step. For example, in Step 1, follow-up drinks per week was examined as a function of time (dummy coded to represent time 2 or time 3) and treatment condition. The interaction between time and treatment condition was added at Step 2. Thus, the main effect of treatment provides a test of differences between the intervention and control group during follow-up including both the three- and six-month assessments. The test of the interaction at Step 2 provides a test of whether differences between the intervention and control group were larger at the three-month assessment relative to the six-month assessment.

3 PROTECTION OF HUMAN SUBJECTS

3.1 PROTECTION OF PHI

When a participant enrolled, he or she was assigned a participant identification number (PID). All research records (including digital recordings) were labeled using only PIDs. These research records were stored separately from any

forms with participant's identifying information in locked file cabinets. Only the research staff had access to these records. The only document on which both the participant's names and PIDs appear together is in their contact folder, which contains no data or health information. Names, contact information and links between name and PID are to be destroyed at the end of the trial.

A Certificate of from the National Institutes of Health was obtained for this study (see Appendix 1.3), and the Army's Human Research Protections Office agreed to or anonymous participation of active-duty personnel.

3.2 INFORMED CONSENT

3.2.1 Consenting Process

Prior to initiation of recruitment, consent scripts and documents were reviewed and approved by the University of Washington IRB and the Army Human Research Protection Office.

Because no in person interviews were held, and for participants who enroll anonymously, the consent form would be the only document identifying participants, permission was requested and granted for a waiver of written documentation of consent. Instead, verbal consent was obtained and documented by study staff.

When participants first called the recruitment phone line, study staff acquired verbal consent to complete the screening questionnaire using the "Consent for Screening" script. Once participants screened as eligible, staff then completed the "Consent for Participation in Main Trial" script and obtained verbal consent. The staff member who obtained consent then signed a copy of the "Participant Information Statement" and mailed it to the participant. These documents can be found in Appendix 3.

3.2.2 Risks and Benefits to Subjects

The following potential risks and benefits were communicated to participants during the informed consent process.

RISKS: Participants in this study were at risk if and sensitive information (e.g., the fact that they are participating, affirmative answers to questions concerning any use of illicit drugs, or criteria met for an addictive disorder with alcohol and/or other drugs) were disclosed without the participant's consent to non-study personnel.

With reference to the participant's occupational status, such a disclosure could have had the potential of adversely affecting his/her legal standing, security clearance, eligibility for promotion and/or specific assignments, and overall regard with which he/she is perceived by colleagues and superiors. With reference to the participant's family and friends, such a disclosure could potentially have had adverse psychological and social consequences. Additionally, if the participant is involved with divorce proceedings or child custody disputes, such a disclosure could have adversely affected the participant's standing in these legal matters. Participants were also warned that some of the questions they would be asked were of a personal and sensitive nature.

BENEFITS: Staff acknowledged during the consent process that individual participants may or may not directly benefit from involvement in the study other than receiving compensation payments for completing study questionnaires. Consent materials also explained that the study may benefit some participants by facilitating earlier initiation into recovery efforts than otherwise would have been the case.

3.2.3 Voluntary Participation

The study was designed to elicit voluntary participation by soldiers. Interested participants self-referred to the study and cguarantees ensured that commanders or any other individual could coerce a participant into the study. Consent materials explained that participation was voluntary, that participants could decline to answer any question they did not wish to answer or withdraw from the study at any time without penalty.

3.3 Vulnerable Populations

No vulnerable populations, as defined by Federal Code (45 CFR 46) were specifically recruited for participation in the trial.

3.4 Inclusion of Women & Minorities

Participation in the trial was self-referred and participants were not selected for participation based on gender, racial or ethnic identities. The demographic characteristics of the sample were expected to mirror that of the greater population of active-duty soldiers with untreated substance use disorder. In recruitment materials that featured the image of a person or soldier, images were selected to reflect racial and gender diversity.

4 References

Baer, J. S., Stacy, A., & Larimer, M. (1991). Biases in the Perception of Drinking Norms among College Students. Journal of Studies on Alcohol, 52(6), 580-586.

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). Behav Res Ther, 34(8), 669-673.

Brown, S. A., Myers, M. G., Lippke, L., Tapert, S. F., & Stewart, D. G. (1998). Psychometric evaluation of the customary drinking and drug use record (CDDR): A measure of adolescent alcohol and drug involvement. Journal of Studies on Alcohol, 59(4), 427-438.

Collins, R. L., Parks, G. A., & Marlatt, G. A. (1985). Social determinants of alcohol consumption: the effects of social interaction and model status on the self-administration of alcohol. J Consult Clin Psychol, 53(2), 189-200.

Deci, E. L., & Ryan, R. M. (1985a). The general causality orientations scale: Self-determination in personality. Journal of Research in Personality, 19, 109-134.

First, M. B., Spitzer, R. L., Gibborn, M., & Williams, J. B. (1995). Structured clinical interview for DSM-IV axis 1 disorders (patient edition SCID I/O, Version 2.0 ed.). New York, NY: Biometrics Research Department, New York State Psychiatric Institute.

Forcehimes, A. A., Tonigan, J. S., Miller, W. R., Kenna, G. A., & Baer, J. S. (2007). Psychometrics of the Drinker Inventory of Consequences (DrInC). Addictive Behaviors, 32(8), 1699-1704. doi: DOI: 10.1016/j.addbeh.2006.11.009

Grant, V. V., Stewart, S. H., O'Connor, R. M., Blackwell, E., & Conrod, P. J. (2007). Psychometric evaluation of the five-factor Modified Drinking Motives Questionnaire - Revised in undergraduates. Addictive Behaviors, 32(11), 2611-2632. doi: 10.1016/j.addbeh.2007.07.004

Griffith, J. (2009). Being a Reserve Soldier A Matter of Social Identity. Armed Forces & Society, 36(1), 38-64. doi: 10.1177/0095327x08327819

Kivlahan, D. R., Marlatt, G. A., Fromme, K., Coppel, D. B., & Williams, E. (1990). Secondary prevention with college drinkers: evaluation of an alcohol skills training program. J Consult Clin Psychol, 58(6), 805-810.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med, 16(9), 606-613.

Miller, W. R., & Tonigan, J. S. (1996). Assessing drinkers' motivation for change: The stages of change readiness and treatment eagerness scale. Psychology of Addictive Behaviors, 10(2), 91-89.

Osman, A., Bagge, C. L., Gutierrez, P. M., Konick, L. C., Kopper, B. A., & Barrios, F. X. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. Assessment, 8(4), 443-454.

Ray, J. J. (1984). The reliability of short social desirability scales. The Journal of Social Psychology, 123, 133-134.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med, 166(10), 1092-1097. doi: 10.1001/archinte.166.10.1092

Vogt, D. S., Proctor, S. P., King, D. W., King, L. A., & Vasterling, J. J. (2008). Validation of scales from the Deployment Risk and Resilience Inventory in a sample of Operation Iraqi Freedom veterans. Assessment, 15(4), 391-403. doi: 10.1177/1073191108316030

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1993). The PTSD Checklist (PCL): reliability, validity, and diagnostic utility. Paper presented at the 9th Annual Conference of the International Society for Traumatic Stress Studies. San Antonio, TX.

DEPARTMENT OF THE ARMY
JOINT BASE GARRISON
BOX 339500, MAIL STOP 1AAA
JOINT BASE LEWIS-MCCHORD, WASHINGTON 98433

February 12, 2010

Denise Walker, PhD
School of Social Work, IPRG
University of Washington
909 NE 43rd Street, Suite #304
Seattle, WA 98105-6020

Dr. Walker:

This letter confirms my support and endorsement of the collaboration between the University of Washington's School of Social Work and the Substance Abuse Rehabilitation Department at Joint Base Lewis- McChord's Madigan Army Medical Center in conducting a research project entitled, "Motivating Treatment Seeking and Behavior Change by Untreated Military Personnel Abusing Alcohol or Drugs."

This study will primarily be conducted over the telephone and will seek to enroll 240 U.S. Army personnel who meet substance abuse or dependence criteria. Recruitment will consist of print and radio advertisements. Participants will be assessed at baseline and randomly assigned to receive either a session of motivational enhancement therapy (MET) or an educational session on the effects of substance abuse. Both sessions will be led by a counselor. All participants (including those deployed during their participation), will be reassessed 3-months and 6-months following the intervention.

I understand that you have been meeting with Dr. Darnell, Chief of The Substance Abuse Rehabilitation Department, for consultation on this project and will continue to do so throughout the study period. Additionally, I met with Dr. Darnell to learn about the details of the study, including plans for the project's marketing, assessment, and intervention protocols. Additionally, you have met and gained the support of Colonel Amoroso, Chief of The Department of Clinical Investigation, who offered to provide advice and consultation as needed. As alluded to earlier, I fully support the proposed study and the collaboration between the University of Washington and the Madigan Army Medical Center at Fort Lewis.

If you need anything further from me, please do not hesitate to get in touch with me. I look forward to working with you.

Sincerely,

Thomas H. Brittain
Colonel, US ARMY
Comanding

DEPARTMENT OF THE ARMY
HEADQUARTERS, JOINT BASE LEWIS-MCCHORD
1010 LIGGETT AVENUE, BOX 339500, MAIL STOP 1AA
JOINT BASE LEWIS-MCCHORD, WA 98433-9500

JAN 14 2013

REPLY TO
ATTENTION OF

Office of the Joint Base Commander

Denise Walker, PhD
School of Social Work, IPRG
University of Washington
909 NE 43rd Street, Suite #304
Seattle, WA 98105-6020

Dear Dr. Walker:

This letter confirms my support and endorsement of the collaboration between the University of Washington's School of Social Work, and the Substance Abuse Rehabilitation Department at Joint Base Lewis-McChord's Madigan Army Medical Center, in conducting a research project entitled, "Motivating Treatment Seeking and Behavior Change by Untreated Military Personnel Abusing Alcohol or Drugs," also known as "The Warrior Check-Up."

This study will seek to enroll 240 US Army personnel who meet substance abuse or dependence criteria. Recruitment will consist of print advertisements posted at various locations throughout the post, (including but not limited to: gyms, medical/dental clinics, Madigan Hospital, Waller Hall, dining facilities and MWR facilities) as well as in-person recruitment at MWR events and ASAP, Reintegration and Family Readiness briefings.

The study assessments and interventions will be conducted over the telephone. Participants will be assessed at baseline and randomly assigned to receive either a session of motivational enhancement therapy (MET) or an education session on the effects of substance abuse. Both sessions will be led by a counselor. All participants (including those deployed to a non-combat zone), will be reassessed 1-week, 3-months, and 6-months following the intervention.

I understand that you have been meeting with Dr. Darnell, Substance Abuse Program Manager, for consultation on this project and will continue to do so throughout the study period. I also understand that you have gained the support and approval of Colonel Amoroso, former Chief of the Department of Clinical Investigation, as well as approval from the University of Washington's Institutional Review Board and the Department of Defense's Human Research Protection Office.

I fully support the current study and associated participant recruitment activities mentioned above.

Sincerely,

H. Charles Hodges, Jr.
Colonel, US Army
Commanding

DEPARTMENT OF THE ARMY
MADIGAN ARMY MEDICAL CENTER
TACOMA, WASHINGTON 98431-1100

REPLY TO
ATTENTION OF

University of Washington

November 19, 2009

Denise Walker, PhD
School of Social Work, IPRG
University of Washington
909 NE 43rd Street, suite #304
Seattle, WA 98105-6020

Dear Dr. Walker:

This letter confirms my support and endorsement of your study "Motivating Treatment Seeking and Behavior Change by Untreated Military Personnel Abusing Alcohol or Drugs." Your efforts to coordinate your activities with various medical and command elements at MAMC and on Ft. Lewis will serve you well and greatly increase your ability to effectively execute your study with Army personnel.

I understand that the study will seek to enroll 240 U.S. Army soldiers who meet substance abuse or dependence criteria, who will be recruited using print and radio advertisements. Participants will be randomly assigned to receive either a session of motivational enhancement therapy (MET) or an educational session with a counselor on the effects of substance abuse. All participants (including those deployed during their participation), will be reassessed 3-months and 6-months following the intervention.

After having met with you to learn about the details of the study, including plans for the project's marketing, assessment, and intervention protocols, I endorse the project and join with my collegues at Madigan Army Medical Center at Fort Lewis in offering advice and support to you as you undertake this ambitious project. I understand that you are in the process of seeking approval by the Institutional Review Boards of USAMRMC and UW. You have also been meeting with Dr. Darnell, Chief, Substance Abuse Rehabilitation Department, for advice and consultation and that you may continue to do so throughout the course of the study.

It appears that MAMC's involvement in this study is limited, and per 45 CFR 46.102(d), (f) does not constitute "engagement". Therefore, approval of the MAMC IRB is not required for execution of this study on Ft. Lewis.

Sincerely,

Paul J. Amoroso
Colonel, U.S. Army
Chief, Department of Clinical Investigation

National Institutes of Health
National Institute on Drug Abuse
Bethesda, Maryland 20892

CONFIDENTIALITY CERTIFICATE NO. DA-10-128

issued to

UNIVERSITY OF WASHINGTON

conducting research known as

"MOTIVATING TREATMENT SEEKING AND BEHAVIOR CHANGE BY UNTREATED MILITARY PERSONNEL ABUSING ALCOHOL OR DRUGS"

Also known as

"WARRIOR CHECKUP"

In accordance with the provisions of section 301(d) of the Public Health Service Act (42 U.S.C. § 241(d)), this Certificate is issued in response to the request of the Principal Investigator, Denise Walker, Ph.D., School of Social Work, University of Washington, Innovative Programs Research Group, 909 NE 43rd Street, Suite 304, Seattle, WA 98105, to protect the privacy of research subjects by withholding their identities from all persons not connected with this research. Dr. Walker is primarily responsible for the conduct of this research, which is funded under grant #W81XWH-09-2-0135 from the Department of Defense Deployment Related Research Program of the Office of Congressionally Directed Medical Research Programs.

Under the authority vested in the Secretary of Health and Human Services by section 301(d), all persons who:

1. are enrolled in, employed by, or associated with the University of Washington and its research sites, contractors, or cooperating agencies and

2. have in the course of their employment or association access to information that would identify individuals who are the subjects of the research project known as "Motivating Treatment Seeking and Behavior Change by Untreated Military Personnel Abusing Alcohol or Drugs" also known as "Warrior Checkup,"

are hereby authorized to protect the privacy of the individuals who are the subjects of that research by withholding their names and other identifying characteristics from all persons not connected with the conduct of that research.

The research began on September 1, 2010 and is expected to end on August 31, 2015.

The purpose of this study is to develop and test a telephone-delivered motivational enhancement intervention for military personnel with a current substance use disorder who are neither in treatment nor self-initiating change. The intervention is designed to prompt a willingness to

participate voluntarily in a self-appraisal of substance abuse behavior, an enhanced motivation to cease the abuse of alcohol and/or other drugs, and treatment seeking or engagement in a self-help program.

Study subjects' identities are protected by use of a participant ID number instead of personal information on all research records. These records are stored in locked file cabinets separately from any forms with participant's identifying information. A master list will link the participant name with the study ID number. The master participant list is a password-protected document, stored on a password-protected computer and will be destroyed upon completion of the study.

A Certificate of Confidentiality is needed because sensitive information concerning study subjects' alcohol and illicit drug use is collected during the course of the study. The Certificate will help researchers avoid involuntary disclosure that could expose subjects or their families to adverse economic, legal, psychological and social consequences.

As provided in section 301(d) of the Public Health Service Act 42 U.S.C. 241(d):

> "Persons so authorized to protect the privacy of such individuals may not be compelled in any Federal, State, or local civil, criminal, administrative, legislative, or other proceedings to identify such individuals."

This Certificate does not protect you from being compelled to make disclosures that: (1) have been consented to in writing by the research subject or the subject's legally authorized representative; (2) are required by the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) or regulations issued under that Act; or (3) have been requested from a research project funded by NIH or DHHS by authorized representatives of those agencies for the purpose of audit or program review.

This Certificate does not represent an endorsement of the research project by the Department of Health and Human Services. This Certificate is now in effect and will expire at the end of August 2015. The protection afforded by this Confidentiality Certificate is permanent with respect to any individual who participates as a research subject (i.e., about whom the investigator maintains identifying information) during any time the Certificate is in effect.

Date: 2/2/10

Nora D. Volkow, M.D.
Director

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
National Institute on Drug Abuse
Bethesda, Maryland 20892

CONFIDENTIALITY CERTIFICATE NO. DA-10-128

Dear Investigator:

The original Confidentiality Certificate issued to your organization is enclosed. Please keep this original in a safe place. Any correspondence sent to NIDA regarding the Certificate must reference the Certificate number. Please note the Certificate expires at the end of August 2015. We are providing one more year of Certificate coverage than you requested because it has been our experience that many studies take longer to complete than initially projected. Providing an extra year will ensure coverage for subjects and may spare you the need to formally submit a request for an extension.

Please be sure that the consent form given to research participants accurately states the intended uses of personally identifiable information (including matters subject to reporting) and the confidentiality protections, including the protection provided by the Certificate of Confidentiality with its limits and exceptions.

If you determine that the research project will not be completed by the expiration date, you must submit a written request for an extension of the Certificate three months prior to the expiration date. If you make any changes to the protocol for this study, you should contact me regarding modification of this Certificate. Any requests for modifications of this Certificate must include the reason for the request, documentation of the most recent IRB approval, and the expected date for completion of the research project.

Please advise me of any situation in which the certificate is employed to resist disclosure of information in legal proceedings. Should attorneys for the project wish to discuss the use of the certificate, they may contact the Office of the NIH Legal Advisor, National Institutes of Health, at (301) 496-6043.

Correspondence should be sent to: Anne Jarrett, Office of Extramural Affairs, NIDA, 6101 Executive Boulevard, Room 220, MSC 8401, Bethesda, MD 20892-8401, Phone (301) 402-6020 and fax number (301) 443-0538.

Please visit the NIH website for Confidentiality Certificates at

http://grants.nih.gov/grants/policy/coc/index.htm.

Sincerely,

Mark R. Green, Ph.D.
Confidentiality Certificate Coordinator

Enclosure

Efficacy Trial of Warrior Check-Up

This study has been completed.

Sponsor:
University of Washington

Collaborator:
U.S. Army Medical Research and Materiel Command

Information provided by (Responsible Party):
Denise Walker, University of Washington

ClinicalTrials.gov Identifier:
NCT01128140

First received: May 14, 2010
Last updated: May 26, 2015
Last verified: May 2015
History of Changes

Purpose

This study will develop and test a brief telephone-delivered motivational enhancement intervention for substance abusing military personnel who are not currently in treatment. The hypotheses being tested are that this intervention will prompt a willingness to participate voluntarily in a self-appraisal of substance abuse behavior and consequences, self-initiated change or enrollment in a treatment or self-help program, and cessation of abuse of alcohol or other drugs.

Condition	Intervention	Phase
Alcohol Abuse Alcohol Dependence Substance Abuse Substance Dependence	Behavioral: Motivational Enhancement Therapy Behavioral: Education	Phase 2

Study Type: Interventional
Study Design: Allocation: Randomized
Endpoint Classification: Efficacy Study
Intervention Model: Parallel Assignment
Masking: Single Blind (Outcomes Assessor)
Primary Purpose: Treatment

Official Title: Motivating Treatment Seeking and Behavior Change by Untreated Military Personnel Abusing Alcohol or Drugs

Further study details as provided by University of Washington:

Primary Outcome Measures:

- Form 90D [Time Frame: 3 months] [Designated as safety issue: No]

  Structured interview that uses a timeline follow-back procedure to elicit detailed daily information on the use of alcohol and other drugs.

- Inventory of Drug Use Consequences [Time Frame: 3 months] [Designated as safety issue: No]

  A 50-item inventory of consequences related to alcohol and drug use.

- Treatment Seeking and Preparation Behaviors Questionnaire [Time Frame: 3 months] [Designated as safety issue: No]

  Assesses treatment-seeking attitudes, intentions, and behaviors.

Secondary Outcome Measures:

- Stages of Change Readiness and Treatment Eagerness Scale [Time Frame: 3 months] [Designated as safety issue: No]

  19-item questionnaire that assesses readiness to make changes in alcohol or drug use behaviors.

- Drinking Norms Rating Form [Time Frame: 3 months] [Designated as safety issue: No]

  Participant estimates of prevalence and frequency/volume of alcohol/drug consumption by the average person and the average person in the military.

Enrollment: 242
Study Start Date: October 2010
Study Completion Date: September 2014
Primary Completion Date: September 2014 (Final data collection date for primary outcome measure)

Arms	Assigned Interventions
Experimental: Motivational Enhancement Therapy	Behavioral: Motivational Enhancement Therapy MET, a 30-60 minute telephone session, seeks to increase motivation for change by highlighting inconsistencies between substance use behaviors and beliefs and negative consequences experienced as a result of the behaviors. The counselor will guide the participant in reviewing the Personal Feedback Report (PFR), using MI strategies to elicit the participant's reactions and foster motivation for change. The PFR will show the participant's self-reported alcohol and drug use behavior, consequences of SA, and the participant's perceived and actual descriptive norms for SA behavior. The second phase will target strengthening commitment to change. Counselors will explore with participants the pros and cons of seeking treatment. As the participant verbalizes potential benefits of learning more about treatment, the counselor will use MI skills to encourage elaboration of his/her thinking with the goal of tipping the scale toward a decision to consider taking steps toward treatment.
Active Comparator: Education	Behavioral: Education Participants will receive educational information on the health, psychological, social, and legal consequences of substance abuse. Included in the session will be: legal and behavioral definitions of SA, the social and legal consequences of SA, impact of SA on military duty, a review of the policies on substance use in the military, and treatment resources. The session will be conducted via the telephone and will last from 30-60 minutes. Counselors will present information in a didactic manner and will avoid the use of Motivational Interviewing skills (reflective listening, developing discrepancy, reinforcing participant statements regarding change).

Detailed Description:

The health and well-being of military personnel, and consequently the capacity for optimal functioning of military units, are compromised by the abuse of alcohol and/or other drugs. Rates of heavy drinking are higher among military personnel than in the general population and are even higher among recently deployed personnel.

While counseling can be effective, most substance abusers do not tend to voluntarily seek treatment. Moreover, military personnel encounter more real and perceived barriers to seeking treatment.

The substance abuse field is increasingly focusing on developing interventions for those at early stages of readiness to change, i.e., those contemplating but not yet committed to change. A brief, telephone-delivered motivational enhancement intervention (MET) called a "check-up," has shown promise in promoting self-initiated behavior change as well as voluntary treatment entry, enhanced retention, and more successful outcomes for substance abuse.

Adapting the "check-up" for application with military personnel is warranted for three key reasons: (1) it has the potential of overcoming barriers to treatment-seeking, i.e., stigma and apprehension of a negative impact on one's military career; (2) it has the potential of attracting voluntary participation; and (3) protocols for disseminating this low cost intervention for use with deployed military can readily be developed and evaluated.

Eligibility

Ages Eligible for Study: 18 Years and older (Adult, Senior)
Genders Eligible for Study: Both
Accepts Healthy Volunteers: No

Criteria

Inclusion Criteria:

1. current abuse or dependence on one or more substances
2. not currently enrolled in a counseling program focusing on substance abuse
3. currently serving in the Army or other branch of the military.

Exclusion Criteria:

1. non-fluency in English
2. evidence of psychosis

Contacts and Locations

Choosing to participate in a study is an important personal decision. Talk with your doctor and family members or friends about deciding to join a study. To learn more about this study, you or your doctor may contact the study research staff using the Contacts provided below. For general information, see Learn About Clinical Studies.

Please refer to this study by its ClinicalTrials.gov identifier: NCT01128140

Locations

United States, Washington

University of Washington Innovative Programs Research Group
Seattle, Washington, United States, 98105

Sponsors and Collaborators

University of Washington

U.S. Army Medical Research and Materiel Command

Investigators

Principal Investigator: Denise D Walker, PhD University of Washington School of Social Work

More Information

Responsible Party:	Denise Walker, Research Associate Professor, University of Washington
ClinicalTrials.gov Identifier:	NCT01128140 History of Changes
Other Study ID Numbers:	37278-C
Study First Received:	May 14, 2010
Last Updated:	May 26, 2015
Health Authority:	United States: Institutional Review Board

Keywords provided by University of Washington:
motivational enhancement therapy

Additional relevant MeSH terms:
Alcoholism
Substance-Related Disorders
Alcohol-Related Disorders
Chemically-Induced Disorders
Mental Disorders

ClinicalTrials.gov processed this record on October 31, 2016

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Funded by the Department of Defense

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Take stock and explore your options...

WARRIOR CHECK-UP

888-685-3889

www.warriorcheckup.org

- **Command NOT notified**
- **Private**
- **Non-judgmental**
- **Free, all by phone**
- **Earn up to $175**

WARRIOR CHECK-UP

A University of Washington Study

Funded by the Department of Defense

Concerned you might get hooked?

Take stock and explore your options...

WARRIOR CHECK-UP

888-685-3889

www.warriorcheckup.org

- **Command NOT notified**
- **Private**
- **Non-judgmental**
- **Free, all by phone**
- **Earn up to $175**

WARRIOR CHECK-UP

A University of Washington Study
Funded by the Department of Defense


Drinking or drugs holding you back?
Take stock and explore your options...
WARRIOR CHECK-UP
888-685-3889
www.warriorcheckup.org
• Command NOT notified
• Private
• Non-judgmental
• Free, all by phone
• Earn up to $175
WARRIOR CHECK-UP
A University of Washington Study
Funded by the Department of Defense

Drinking or drugs slowing you down?

Take a look at your options...

THE WARRIOR CHECK-UP

1-888-685-DUTY

www.warriorcheckup.org

- Command NOT notified
- Private
- Non-judgmental
- Free, all by phone
- Earn up to $175

WARRIOR CHECK-UP

A University of Washington Study
Funded by the Department of Defense

Drinking or drugs dividing your family?

Take Stock and Explore Your Options...

- COMMAND **NOT** NOTIFIED
- PRIVATE
- FREE, ALL BY PHONE
- NON-JUDGMENTAL
- EARN UP TO $175

1-888-685-DUTY
www.warriorcheckup.org

WARRIOR CHECK-UP

A University of Washington Study
Funded by the Department of Defense

Feel you could give him more to look up to?

Take stock of your alcohol or drug use and explore your options...

THE WARRIOR CHECK-UP

1-888-685-DUTY

www.warriorcheckup.org

- Command NOT notified
- Private
- Non-Judgmental
- Free, all by phone
- Earn up to $175

WARRIOR CHECK-UP

A University of Washington Study
Funded by the Department of Defense

How much is too much?

Take stock and explore your options.

888-685-DUTY

WARRIORCHECKUP.ORG

A UNIVERSITY OF WASHINGTON STUDY

COMMAND **NOT** NOTIFIED

WARRIOR CHECK-UP

WARRIOR CHECK-UP

Questions about your use?

WARRIOR CHECK-UP

Call to take stock and explore your options.

888-685-DUTY

♦*Command NOT notified*♦

•A University of Washington Study•

•All by phone•

•Earn up to **$175**•

WARRIOR CHECK-UP

WARRIORCHECKUP.ORG

Drinking slowing you down?

888-685-DUTY

WARRIORCHECKUP.ORG

Take stock and explore your options
Call the Warrior Check-Up

• Command **NOT** notified • Free
• Nonjudgmental • You will be compensated •
• A University of Washington Study •

WARRIOR CHECK-UP


Taking risks when drinking?
Take stock and explore your options.
WARRIOR CHECK-UP
NO Command Involvement ♦Free ♦Confidential
Nonjudgmental ♦All by phone ♦Earn up to $175
888-685-3889
www.warriorcheckup.org
A University of Washington study, funded by DoD


Taking risks when drinking?
WARRIOR CHECK-UP
Take stock and explore your options.
Free ♦ NO Command Involvement
Confidential ♦ Nonjudgmental
All by phone ♦ Earn up to $175
A University of Washington Study
888-685-3889
WARRIOR CHECK-UP


Taking risks when drinking or using other drugs?
WARRIOR CHECK-UP
Take stock and explore your options.
NO Command Involvement
888-685-3889
Confidential & Nonjudgmental
Free & All by phone
Earn up to $175
WARRIOR CHECK-UP
A University of Washington Study

Making too many bad decisions when drinking?

WARRIOR CHECK-UP

Call to take stock and explore your options.

All by phone

NO Command Involvement

Confidential

Nonjudgmental

Earn up to $175

WARRIOR CHECK-UP

888-685-3889

A University of Washington Study

Jokes about your drinking getting on your nerves?

WARRIOR CHECK-UP

Call to take stock and explore your options.

888-685-3889

Command NOT notified
Confidential or Anonymous
Nonjudgmental
All by phone
Free
Earn up to $175

WARRIOR CHECK-UP

A University of Washington Study
Funded by Department of Defense

Worried you've been pressing your luck?

WARRIOR CHECK-UP

Treasure your options!

888-685-3889

Command NOT notified
Confidential or Anonymous
Nonjudgmental
All by phone
Free
Earn up to $175

WARRIOR CHECK-UP

A University of Washington Study
Funded by Department of Defense

Wondering how much longer you can get away with it???

WARRIOR CHECK-UP

Take stock and explore your options...

A chance to explore your concerns, ask questions and think through your options. Counselors don't report to Command, so there's no harm to your career.

Free ♦ Command NOT notified
♦ Nonjudgmental All by phone ♦
Earn up to $175 A University of Washington Study

888-685-3889

www.warriorcheckup.org

Taking risks when drinking?

WARRIOR CHECK-UP

Take stock and explore your options.

Free ♦ Command NOT notified
Confidential ♦ Nonjudgmental
All by phone ♦ Earn up to $175
A University of Washington Study

Funded by Department of Defense

WARRIOR CHECK-UP

888-685-3889

Alcohol or drugs hurting your love life?

Take stock and explore your options.

Command NOT notified

Earn up to $175

All by phone

Nonjudgmental

Free & Private

Confidential

WARRIOR CHECK-UP

A University of Washington Study
funded by Department of Defense

888-685-3889

www.warriorcheckup.org


Drinking or using drugs?
Participate in a confidential UW study.
888-685-3889
Call to see if you're eligible.
WARRIOR CHECK-UP
Funded by DoD
Earn $$$
Help other Soldiers
Maybe even help yourself
No pressure, No judgment
Command has NO involvement


Need a holiday from your drinking?
Call to take stock and explore your options.
WARRIOR CHECK-UP
ACT FAST!!!
Study ends
31 January 2014
Earn $175
Free ♦ NO Command Involvement
Confidential ♦ Nonjudgmental
All by phone ♦ Earn up to $175
A University of Washington Study
888-685-3889
or text: 206-353-0878

Alcohol make a mess of your holidays?

Take stock and explore your options.

- No Command involvement
- All by phone
- Nonjudgmental
- Confidential
- Earn Compensation

Earn $175

ACT FAST!!!
Study ends
31 January 2014

888-685-3889

or text: 206-353-0878

A University of Washington Study

WARRIOR CHECK-UP

2014: Time for a change?

Questions or concerns about your drinking or drug use?

Take stock and explore your options

Earn $175

ACT FAST! Study ends 31 January 2014

No Command Involvement

All by phone

Nonjudgmental

Confidential

888-685-3889

or text: 206-353-0878

WARRIOR CHECK-UP

A University of Washington Study

PID #:	____
Date:	__/__/__
☐ Screening	

Warrior Check-Up
Consent for Screening

Greeting
<<Assessor greets caller and introduces self. Let caller know what the aims of the call are.>>

Hi, are you calling about the Warrior Check-Up?

<<If they're not calling about the Warrior Check-Up, refer them to the appropriate resource if applicable, and document the call on the "tracking form" for un-screened callers.>>

I'm glad you called. My name is _____ ***<<Don't forget to introduce yourself!>>***

Are you in a place where you can have a private conversation with me and not be overheard?

<<If they're not, request that they either move to a private place while you're on the line or call back once they're in one.>>

Study Overview and Consent for Screening

The Warrior Check-Up is a research project designed for active duty military personnel who have **mixed feelings or are concerned** about their use of alcohol, substances, or prescription medications.

Before I go on, there are a few important aspects of this project I'd like you to understand:

- This research project is funded by the Department of Defense.
- However, it is being conducted by the University of Washington.
- No one at Joint Base Lewis-McChord will have access to identifiable information, for example the names or units, of people who participate in this project.
- The chain of command will not know who participates in this project.
- Finally, just in case we're disconnected, would you be willing to give me your phone number so I can reach you? If you decide not to participate in this project or are not eligible, I'll shred it as soon as our conversation is over.

Phone number: (____)_____

PID #:	____
Date:	__/__/__
☐ **Screening**	

I'd like to tell you more about our project and, if you're interested in participating, ask you some questions to see if you're eligible.

But, I also want you to have an opportunity to tell me more about what's going on that led you to call us. Making that first step to call is not easy, and I'm glad that you did. We are here to offer you support and help you explore what's going on.

Would you like:

(1) me to tell you more about the project - ***<<continue to scenarios below or overview, top of page 3>>***

OR

(2) for you to tell me more about your situation? - ***<<go to page 3, his/her situation>>***

<<Reviewing the following scenarios is optional, if it seems to be potentially useful to caller.>>

.....

To give you a better idea about our project, let me describe two individuals. I'll call them John and Susan.

John

John drinks a lot on the weekends. He also yells at his wife quite a bit and is often easily angered. John wants things to be better but is confused about whether to do anything about it.

Susan has similar mixed feelings, although in a somewhat different situation.

Susan

Susan has been taking a lot of pills, sometimes to get through some stressful experiences and sometimes to just feel normal. At times, she wonders if she could make it without the pills and that thought frightens her. But, giving them up is also frightening.

The similarity in John's and Susan's scenarios is that they both have mixed feelings about the way they're using substances. They both wish that things could be better.

Your situation is probably different from John and Susan.

.....

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PID #:	____
Date:	__/__/__
☐ **Screening**	

Overview of the Warrior Check-Up

We focus on supporting military personnel who are concerned about their alcohol, substance, or prescription medication use.

Our project, however, is not about pressuring people to make changes. We would help you sort out your concerns for yourself and explore options for the future.

So, I want you to understand that we're not a treatment center. We offer two services that we are evaluating at the University of Washington as part of a research project:

- One gives you the opportunity to thoughtfully explore your concerns about your behaviors in a personal feedback session by telephone.
- The other provides you educational information about the potential impact of substance abuse problems on military personnel and people who are close to them.

Because this is a research project, you won't choose the service you will receive. That will be done randomly, as in a flip of a coin.

So, in order to evaluate this new project, we're offering it to a few people over a short period of time. ***<<If s/he's already told you about their situation, go to p. 4 – additional info on the Warrior Check-Up. Otherwise continue with script.>>***

.....

Would you mind telling me a little bit about what's going on that led you to call our project?

<<While s/he describes their situation, be reflective so they know you're listening and understand, but don't be therapeutic or clinical – e.g.: "I see..." "Hmm..." "okay...">>
<<LET THE CALLER SHARE THEIR STORY W/OUT INTERRUPTION. JUST LET HIM/HER KNOW YOU ARE LISTENING...>>

(IA3). ***<<Record concerns or situation below>>***

_____

_____

_____

_____

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PID #:	____
Date:	__/__/__
☐ Screening	

It sounds like _____ ***(offer paraphrase of disclosures above, focusing on his/her behaviors)***.

Knowing more about you will help me answer your questions and concerns and will let us know if this project would be a good fit for you.

Before I tell you more about the Warrior Check-Up, let me ask if you've called our project before.

(IA3A). Check here if repeat caller: ☐

<<If repeat caller, determine proximity and depth of previous phone call. If caller's gone through any previous screening, refer to repeat caller protocol >>

<<Check-in with caller: e.g., does that make sense? Do you have any questions, etc.>>

Okay, so let me tell you a bit more about the Warrior Check-Up.

It's all telephone based and your entire participation would be five phone calls over a period of seven months. In order for us to make sure we're not doing guess work about what's helpful and not helpful, we have to collect a lot of information. ...but we'll be with you every step of the way.

A couple of important points: during today's and other phone interviews, you'll be free not to answer any questions you choose at any time. Some questions are sensitive. For example: "Have you ever been arrested or charged for a crime?" and "In the past 90 days, have you missed school or work because you were intoxicated?"

I also want to assure you that everything you say is confidential – we will protect your privacy. We won't share any information that you give us with anyone outside our project except if we think you are at risk of harming yourself and/or others or you have told us about abuse or maltreatment of a child. We may have to report that to protect you and/or your family members.

Do you have any questions at this point?

(IA4). The next step is to see if you're eligible. Would you like to go ahead, and do you have time to do it now? On average, this call lasts about 30 minutes. However, it could take longer depending on your concerns.

☐ (1) NO, not interested in study — **Offer referrals**

☐ (2) NO, not at this time — **SET-UP ANOTHER TIME**

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PID #:	____
Date:	__/__/__
☐ **Screening**	

SCREEN ASSESSMENT SCHEDULED FOR
_____ AT _____,
MM / DD / YY TIME

Check one:

_____ (1) We'll call participant. Number(s): _____

[redacted]

_____ (2) Participant will call us back ⇨ Give project number. Get name or give 4-digit code on page 5.

☐ (3) **YES** **CONTINUE**

<<Check-in... any questions so far?>>

Before we go on, would you be comfortable giving me your name, or even a made-up name? It'll help our discussion be more conversational. It's OK if you prefer not to.

Name: _____

Check here if this name is made-up! ☐

If they don't provide a name: Okay, well let me give you a 4-digit code that you can use to identify yourself, if for some reason we get disconnected during the call. If that happens, please call us back and give us this 4-digit number and we will be able to continue with our conversation where we left off.

<<Call Code: ___ ___ ___ ___ >>

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PID #:	____
Date:	__/__/__
❒ **Screening**	

Data collection staff ID #:	____
Data entry staff ID#:	____
Data verification staff ID#:	____

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Warrior Check-Up
Consent for Participation in the Trial

Okay, those are all of the questions I have for you today. Let me take just a moment to evaluate whether you're eligible to continue with our research project.

<<If caller is ineligible, GO TO section for "Ineligible Callers" below >>

<<If caller is eligible, continue with "Consent" section>>

INELIGIBLE CALLERS

Thanks for spending your time with me learning about the Warrior Check Up. There are specific situations we are looking at for the research project. It looks like our project's focus is not a good fit for your experiences, so it won't be possible for you to participate.

As I told you at the beginning of our call, I will not retain your phone number or name.

I want to commend you for taking this first step in calling our project. I also want to emphasize that not being eligible to participate does not mean that the behaviors you just shared with me are not concerning. I know that you are concerned and that is why you called the project. I'd like to offer you a brief opportunity to talk with one of our counselors about what may be helpful to you and to explore some treatment options and resources in your community. Alternatively, I can spend a few minutes talking with you about a counseling resources list which I'm happy to send to you in the mail. Some of the treatment resources might be available right in your community.

<<ANSWER QUESTIONS. PROVIDE REFERRALS. SUGGEST EDUCATIONAL RESOURCES AND OFFER TO MAIL MATERIALS.>>

<<IF CALLER ASKS WHY INELIGIBLE>> Yeah, I am sure you are curious about that but unfortunately I can not tell you exactly why. In any research project we must focus our program on a specific group of individuals with particular characteristics to test our effectiveness. You, unfortunately, did not meet our criteria exactly so we can not include you in this project. However, we encourage you to look at other resources in your community to find a program that would serve your needs better than we can.

<<IF THE PERSON CONTINUES TO ASK ABOUT ELIGIBILITY CRITERIA, SUGGEST THAT S/HE SPEAK WITH DENISE WALKER AT 206-543-7511. THIS SHOULD BE A LAST RESORT.>>

ELIGIBLE CALLERS

It looks like you're eligible.

Now I want to make sure that you know what will happen if you join this project.

There are three steps:

Step One: A Telephone Interview

Now that we know you're eligible, we will want to learn more from you about your use of alcohol, substances, or prescription medications, your thoughts about the pros and cons of making changes, your mood, and how you've experienced actual or potential deployment to a war zone.

We'll schedule a telephone interview for this purpose that will last about 90 minutes.

Step Two: A Telephone Session

At the end of that call, you'll be randomly assigned (like flipping a coin) to receive:

- A personal feedback session (about one hour) by telephone
  or
- An educational session (about one hour) by telephone

Step Three: Follow-Up Interviews

On two occasions, three and six months after you've had your telephone session, we'll want to interview you again to check on how it's going regarding your alcohol, substance, or prescription medication use.

Because these follow-up interviews will make it possible for us to evaluate the service you and others receive, we'll offer you $50 for completing the first one, $50 for completing the second one, and a bonus of $25 if you've completed both.

However, we'll need to schedule these interviews for times when you're off duty so we can be in compliance with Department of Defense regulations.

How We Will Protect Your Privacy

1) Your identity will be protected.

2) You have the option of enrolling <u>anonymously</u> or <u>confidentially</u>. I'll tell you more about this choice in a moment.

Whether you choose confidential OR anonymous, we will always protect your privacy. All information you provide will be separated from your name and locked up. Only members of our project staff will have access to the information. In 4 years, we will

delete your name and other information that can identify you from all of our records.

3) We have obtained a Certificate of Confidentiality from the National Institutes of Health, which:
   - Protects information you provide and the very fact that you are a participant in the project.
   - States that project staff may not be forced (for example, by court subpoena) to share information that might identify you in civil, criminal, administrative, legislative or other proceedings.
   - Does not prevent you from voluntarily releasing information about yourself or your involvement in the project.

4) We won't share any information you give us with anyone outside our project, with a few exceptions:
   - If we think you are at risk of harming yourself/others or you have told us about abuse or maltreatment of a child, we may have to report that to the appropriate officials.
   - If we are evaluated by the U.S. Army Medical Research and Materiel Command or the University of Washington, your records may be examined. However, the study records will not be used to put you at legal risk of harm.

Other Helpful Information

- This project may help you to better understand your thoughts and motivations surrounding your alcohol and/or drug use.
- Your participation in this project is completely voluntary.
- You have the right to stop participating at any time and you can refuse to answer any questions.
- We ask that you give us permission to digitally record all of our phone interviews with you. They will help us make sure that the services we offer to each participant are consistent. These recordings will not be stored with your name on them, and they will be kept in locked storage cabinets. The recordings will be erased within four years from today's date. Only members of this project's staff will have access to these tapes.
- If you have any questions about the research project or about your rights as a participant, you may call: Dr. Denise Walker (principal investigator) at (206) 543-7511.

- I'll also mail or deliver to you this information again, but in a different version that is required by our University. I'll initial this form if you consent to continue with our project.

Do you have any questions at this point?

(IA33). Would you like to participate in this project?

☐ (0) No **GO TO PAGE 6**
☐ (1) Yes **CONTINUE**
☐ (2) Not ready to decide ***<<GIVE CALLER PID, TO USE WHEN S/HE CALLS>>***

Assessor's initials certifying caller's decision about participating: _____

(IA34). Do you consent for us to digitally record all of our phone interviews with you.

☐ (1) Yes
☐ (2) No

Assessor's initials certifying caller's decision about recording: _____

(IA35). How would you like to participate in the study, confidentially or anonymously?

☐ (1) Confidentially. If you choose to enroll confidentially, we'll know who you are and how to reach you, but we'll keep that information private.

☐ (2) Anonymously. If you enroll anonymously, we won't know who you are. We will not ask for your legal name and we just will need to arrange ways to get you study materials and your compensation payments.

<<explain options for receiving or picking up materials and compensation payments>>

We'll still need to be able to contact you so that we can set up appointments and mail materials to you, including your payment checks.

Some options for how we can make contact with you include:

- One option is for us to send the materials to your address.
- You can pick up the materials here at our office. You don't need to use your real name, and you can pick up materials at our front desk without having to meet project staff. You can also send anyone to pick the materials up for you.

- You can rent a post office box, and we will reimburse you for the cost.

(IA35a). Which of these options would you like to choose?
<<check one; don't repeat these again to participants, unless requested>>

☐ (1) Option A: Mailing
OK, I'll ask for your address – **GO TO CONTACT INFORMATION SHEET**

☐ (2) Option B: Pick Up
OK, our offices are located on the corner of NE 43rd and Roosevelt, about 4 blocks west of the UW campus. We are in a 3 story, green building in suite 304. The building entrance is at the back of the building and our office is on the 3rd floor. When you come in the office, just say you're here to pick up materials for [redacted] the Warrior Check Up, or if you're comfortable, we can use your first name just on the envelope.

☐ (3) Option C: Post Office Box
OK, we will need you to call us back with the post office box number, and then we will send you a money order for [redacted], the cost of rental for 7 months. We will wait to send study materials until we hear back from you.

[ASK IF PHONE NUMBER HASN'T BEEN OBTAINED] Okay. Next, I need to get some information from you on how to contact you in the future.

What is your telephone number? _____

I am glad that you have decided to participate in the program. Let's go ahead and schedule you for your next call. That will take about an hour to complete. Remember that you should be in a private place where you cannot be overheard.

BASELINE CALL SCHEDULED FOR

__ __/__ __/__ __ __ __ **AT** __ __:__ __
MM/DD/YYYY **TIME**

___ **Call Participant** ___ **Participant will call us**

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WARM DOWN

<<After completing the above, take a few minutes to reconnect with the caller at a more human level. One way to begin this process is as follows.>>

Okay, I have just asked you a lot of questions, some of which were general and some of which were very personal. What I'd like to do now is spend just a couple of minutes touching base with you in a less formal way.

I wonder what this experience has been like for you?

<<RESPOND WITH A PARAPHRASE, A QUESTION SEEKING ELABORATION OR AN EMPATHIC RESPONSE.>>

Do you have any other thoughts or questions?

We look forward to talking with you again on [redacted].

<<ANSWER QUESTIONS BUT DO NOT PROVIDE RESOURCES OR REFERRALS TO OTHER SERVICES.>>

Callers who decide NOT to participate

<<ONLY ASK IF CALLER IS NOT INTERESTED IN PARTICIPATING.>>

It would be very useful to us if we could learn from you why you decided not to participate in this project. Because we're trying out something new in this project, knowing how people respond is valuable.

<<WRITE HIS/HER COMMENTS AS CLEARLY AS POSSIBLE>>

_____

_____

_____

_____

Let me read some reasons we thought people might have for not participating. Will you tell me if any of them went into your decision?

<<CHECK ALL THAT APPLY>>

(IA35). Reason not interested in study participation:

- ☐ (1) The phone calls are too long (30 mins – 1 hour)
- ☐ (2) The length of time (up to 7 months) is too long
- ☐ (3) Not being able to select one of the two services
- ☐ (4) Not wanting to share private information
- ☐ (5) Not sure if either of the services would be beneficial
- ☐ (6) Not sure if either of the services are a good fit for situation
- ☐ (7) Wanting treatment not just feedback or information
- ☐ (8) Preferring something else not offered by this project. Explain: _____
- ☐ (9) Other, Specify:_____

<<OFFER REFERRAL INFORMATION TO CALLERS WHO DECIDE NOT TO PARTICIPATE>>

<<ENCOURAGE THE CALLER TO CALL BACK IF S/HE CHANGES THEIR MIND ABOUT WANTING TO PARTICIPATE>>

PID_____

University of Washington
School of Social Work

Warrior Check-Up

Participant Information Statement

Project Investigators

Principal Investigator:	Dr. Denise Walker, Research Assistant Professor, School of Social Work, (206) 543-7511.
Co-Investigators:	Dr. Lyungai Mbilinyi, Research Assistant Professor, School of Social Work, (206) 543-7511.
	Dr. Clayton Neighbors, Professor, Department of Psychology, University of Houston, (713) 743-2616.
	Dr. Roger Roffman, Professor Emeritus, School of Social Work, (206) 543-2312.
Project Director:	Thomas Walton, School of Social Work, (206) 543-7511.
Clinical Director:	Jonnae Tillman, School of Social Work, (206) 543-7511.
Data Manager:	Karen Segar, School of Social Work (206) 543-7511
Assessor:	Adam Pierce, School of Social Work, (206) 543-7511
Mental Health Practitioner:	Beth Dana, School of Social Work (206) 543-7511
Recruitment Coordinator:	Stephanie LaCrone, (253) 495-4112

Researchers' Statement

We are asking you to be in a research study. The purpose of this form is to give you the information you need to help you decide whether or not to participate in the study. Please listen carefully as I go through this form with you. I will also send it in the mail after we're done with our conversation today. Feel free to stop me at any time with questions. You may have questions about the purpose of the research, what we would ask you to do, the possible risks and benefits in participating, your rights as a participant, and anything else about the research or this form that's not clear to you. When all of your questions have been answered, you can decide if you want to participate in the study or not. This process is called "informed consent."

Purpose

This study is for active duty military personnel who are concerned about their use of alcohol, substances, or prescription medications.

In doing this research, we hope to learn how to effectively support military personnel who are experiencing concerns about their use of alcohol, substances, or prescription medications, but may have mixed feelings about trying to change and may be worried about what might happen to them if they seek treatment.

This free project is offered by the University of Washington, School of Social Work, in collaboration with the Substance Abuse Rehabilitation Department, Madigan Army Medical Center. Funding from the Department of Defense is supporting this research.

Procedures

This is a research project. It involves three steps that will take about seven months:

The 1st Step. If you agree to participate, the first step is scheduling another phone interview to continue with our conversation. This call may last up to 90 minutes, and we'll pay you $25 for your time.

I'll ask you about more questions about your use of alcohol, substances, and prescription medications, and there'll also be questions concerning your thoughts about the pros and cons of making changes, your beliefs about the extent to which other military personnel use substances, your mood, and how you've experienced actual or potential deployment to a war zone.

Some of these questions will be personal and sensitive. For example: "Have you used marijuana in the last 90 days?" and "Have you felt distant or cut off from other people?" However, you are free not to answer any questions you do not wish to answer, or to stop participating in our study at any time without penalty or loss of benefits.

The 2nd Step. After that phone interview, you will be randomly assigned (like flipping a coin) to receive one of two services, both of which involve a conversation lasting about one hour over the phone with a counselor.

(1) **" Feedback Session"**

Your counselor will review information that summarizes much of what we have learned from you about your use of alcohol, substances, or prescription medications as well as your thoughts and beliefs about those behaviors. This is called a Feedback Session.

OR

(2) **"Educational Session"**

Your counselor will review educational information concerning alcohol, substances, and prescription medications as well as military policies and services.

The 3rd Step. We'll interview you again by phone – one week, three months and six months after receiving one of the services. This is the third step. The interview one week after your session with a counselor will take about 15 minutes. We'll ask what you thought about the session.

The final two interviews will each take about one hour. We will again ask questions about your alcohol, substance, or prescription medication use, your mood, and your attitudes about the future.

We'll ask if you've sought help from a counselor or agency for an alcohol, substance, or prescription medication problem. If you have, we'll ask you to sign a Release of Information form so that we can contact that counselor and agency and ask about your participation.

These interviews will be important in telling us how helpful participating in our project has been for you and the other people who join the study. We will pay you for your time and helping us with the research study:

- $25 for the interview a week after your session with a counselor
- $50 when you complete a phone interview three months after receiving one of the services
- $50 when you complete a phone interview six months after receiving one of the services
- $25 as a bonus if you complete all four interviews

Risks, Stress or Discomfort

You will be at risk if confidential and sensitive information (e.g., the fact that you are participating, affirmative answers to questions concerning any use of illicit drugs, or criteria met for an alcohol and/or other drugs addictive disorder) is disclosed to non-study personnel without your consent.

With reference to your occupational status, such a disclosure could have the potential of negatively affecting your legal standing, security clearance, eligibility for promotion and/or specific assignments, and overall regard with which you are perceived by colleagues and superiors. With reference to your family and friends, such a disclosure could potentially have negative psychological and social consequences. Additionally, if you are involved with divorce proceedings or child custody disputes, such a disclosure could negatively affect your standing in these legal matters.

However, we've taken many steps to respect and protect your privacy. Any information provided will be coded, separated from your name, and stored in locked filing cabinets. Only project staff will have access to this information. They have been trained and signed "oaths of confidentiality" that they will keep any information from the project private.

We will do everything we can to keep others from learning about your participation in the research. To further help us protect your privacy, we have obtained a Certificate of Confidentiality from the federal government (National Institutes of Health). This protects not only the information you provide, but also the very fact that you are a participant in this research project. The staff may not be forced to identify you in any civil, criminal, administrative, legislative, or other legal proceedings.

There are some exceptions which could result in other people learning of your participation in this project:

1. We will report cases of suspected child abuse and neglect to Child Protective Services (CPS). So, if we believe you are in any way harming a child or if you tell us that you are, we will notify CPS.

2. We will tell a mental health professional (i.e., therapist) or other authority if we believe you are planning to seriously hurt or kill yourself or another person. So, if you tell us that you are going to hurt yourself badly, like kill yourself, we will ask you to call a crisis clinic or we may call a mental health professional ourselves.

3. U.S. Army Medical Research and Materiel Command or University of Washington staff sometimes review studies such as this one to make sure they are being done safely and legally. If a review of this study takes place, your records may be examined. The reviewers will protect your privacy. The study records will not be used to put you at legal risk of harm.

You should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research.

Your participation in this project may be confidential or anonymous.

- Confidential means that we know who you are and how to reach you, but we keep that information private.

- Anonymous means that we don't know who you are. We will not ask for your legal name and we just need to arrange ways to get you study materials and your compensation payments. You will be asked to rent a post office box and then phone the project office with the actual address and a false name. The project will then pay you back for this cost with a blank money order. If child maltreatment is suspected, we will be required to provide your post office address to the appropriate authority.

Benefits

For military personnel who are currently concerned about their use of alcohol and/or other drugs, one potential benefit is the opportunity to overcome key barriers to seeking help. A second benefit may be facilitating earlier initiation of recovery efforts than otherwise would have been the case.

Other Information

The information you provide to us will be confidential or private, and only members of the project staff will have access to information that could identify you. We will use this information to prepare reports about our study. You and other participants will not be identified by name in these reports. We will destroy any identifying information you provide to us within four years from today's date.

We ask that you give us permission to digitally record all of our phone interviews with you. They will help us make sure that the services we offer to each participant are consistent. These recordings will not be stored with your name on them, and they will be kept in locked storage cabinets. The recordings will be erased within four years from today's date. Only members of this project's staff will have access to these tapes.

Future questions you may have about the research or about your rights as a subject will be answered by the principal investigator, Dr. Denise Walker, at (206) 543-7511. You can also call the Human Subjects Division at (206) 543-0098.

Please let me know if you consent or agree to participate. I will then sign the form and send it to you in the mail.

Participant's response: Did consent ___ Did not consent ___

Digital recording: Did consent ___ Did not consent ___

_____

Assessor's first name Signature Date

Warrior Check-Up

Measures by Assesment Timepoint

		Screening	Baseline	1-Week	3-Month	6-Month
Descriptive Variables	Demographics	X				
	Exit from Military					X
	Marketing Exposure Questionnaire	X				
	Post-Deployment Social Support		X			
	Small Unit Identification		X			
	Social Desirability Scale		X			
	Counselor Checklist			X		
	Intervention Process Assessment (IPA)			X		
Mental Health Variables	Anxiety -- GAD-7		X		X	X
	General Causality Orientation Scale		X			
	PTSD Checklist		X		X	X
	Depression -- PHQ-9		X		X	X
	Suicidal Behaviors Questionnaire		X		X	X
	SCID Psychosis & Associated Symptoms	X				
Substance Use Variables	Customary Drinking & Drug Use Record		X		X	X
	Daily Drinking Questionnaire		X		X	X
	Drinking Norms Rating Form		X		X	X
	Life Goals Assessment		X			
	Modified Drinking Motives Questionnaire		X		X	X
	SCID Psychoactive Substance Use Disorder	X			X	X
	Short Inventory of Problems		X			
	SOCRATES 8A (Readiness to Change - Alcohol)		X		X	X
	SOCRATES 8D (Readiness to Change - Drugs)		X		X	X
	Treatment Seeking & Utilization	X			X	X

PID #:	— — — —
Date:	— — / — — / — —
	❒ MET / ❒ ED

WARRIOR CHECK-UP

Counselor Checklist

PLEASE COMPLETE THE FOLLOWING BASED ON THE INTERVENTION SESSION.

1. **ELICITING PARTICIPANT CONCERNS ABOUT SUBSTANCE USE**: To what extent did you attempt to elicit self-motivational statements from the participant?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

2. **AMBIVALENCE**: To what extent did you attempt to focus on the participant's ambivalence about changing their level of substance use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

3. **FEEDBACK/NEGATIVE CONSEQUENCES**: To what extent did you provide structured feedback about the participant's level of substance use OR refer to specific negative consequences of substance use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

4. **REFLECTIVE LISTENING**: To what extent did you communicate understanding of the participant's comments and concerns?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

5. **EMPATHY:** To what degree did you respond empathically to the participant (e.g., through a non-judgmental stance, showing genuine warmth and concern, helping the participant feel accepted in the relationship)?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

Please base your answers to questions 6-16 on your interactions with the participant and his or her reactions to the intervention.

6. How satisfied was the participant with the intervention?

1	2	3	4	5
Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied

7. How defensive or guarded was the participant?

1	2	3	4	5
Not at all defensive	A little defensive	Somewhat defensive	Notably defensive	Extremely defensive

8. How suspicious was the participant about the purpose of the check-up?

1	2	3	4	5
Not at all suspicious	A little suspicious	Somewhat suspicious	Notably suspicious	Extremely suspicious

9. To what extent did the participant indicate that he or she was misled or did not get what was advertised?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

10. To what extent did the participant make statements about wanting to reduce his or her use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

11. To what extent did the participant ask for help or suggestions about changing or reducing use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

12. To what extent did the participant make statements promoting substance use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

13. To what extent did you discuss the participant's goals regarding their substance use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

14. To what extent did you help the participant formulate a reduction or quit plan and/or discuss strategies to support making changes in substance use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

15. To what extent did you discuss the participant's high-risk situations for substance use?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

16. To what extent did you provide information and facts concerning substances?

1	2	3	4	5
Not at all	A little	Somewhat	Considerably	Extensively

***MET**: Complete 17-19* ***EdCon**: Complete 20-21*

17. **[MET only]** How much of the PFR were you able to get through?

N/A 0% 20% 40% 60% 80% 100%

18. **[MET only]** PFR sections completed, check all that apply:

a. ____ Normative feedback re: alcohol
b. ____ Estimated BAC peaks
c. ____ Reasons for alcohol use
d. ____ Consequences of alcohol use
e. ____ Normative feedback re: substances
f. ____ Consequences of substance use
g. ____ Military stress
h. ____ Summary of risk factors
i. ____ Life goals

If all PFR sections completed, skip to question 23.

19. **[MET only]** Check primary reason why PFR section(s) listed in 18 were not completed:

a. Normative feedback re: alcohol
   1. ____ Not enough time
   2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
   3. ____ Other:_____

b. Estimated BAC peaks
   1. ____ Not enough time
   2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
   3. ____ Other:_____

c. Reasons for alcohol use

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

d. Consequences of alcohol use

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

e. Normative feedback re: substances

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

f. Consequences of substance use

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

g. Military stress

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

h. Summary of risk factors

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

i. Life goals

1. ____ Not enough time
2. ____ Not clinically appropriate (e.g., session focused on action planning, topics were otherwise covered and it seemed like backtracking to do the section, participant highly resistant to PFR, etc.)
3. ____ Other:_____

20. **[EdCon only]** How much of the *required* educational modules were you able to get through?

N/A 0% 20% 40% 60% 80% 100%

21. **[EdCon only]** How many of the *optional* educational sections were you able to get through?

_____ <<Note: write in N/A if applicable>>

MET & EdCon: *Complete 22-27*

22. How much of the session were you talking (as opposed to the client)?

N/A 0% 20% 40% 60% 80% 100%

23. How difficult was it to engage the client this session?

1	2	3	4	5
Not at all difficult	Very minor difficulties	Some difficulty	A fair amount of difficulty	A great deal of difficulty

24. In general, how effective do you think you were during this session?

1	2	3	4	5
Not at all or even detrimental	Slightly effective	Somewhat effective	Moderately effective	Extremely effective

25. Please answer the following items about the participant's *current status*:

Among the following choices, select the one that best describes this participant in terms of their making a commitment to change their substance use (check one):

____ (1) Participant has set a specific quit date to stop using.
____ (2) Participant has made a commitment to *reducing* their use.
____ (3) Participant has made a commitment to reduce or stop their use
____ (4) Participant has made no commitment to either quitting or cutting down on their use.
____ (5) Participant did not discuss their current commitment to change.

26. Were any materials given to the participant?

____ (0) No → Go to end of questionnaire

____ (1) Yes → Continue

27. If yes, please check <u>all that apply</u>:

____ (a) Understanding Your PFR

____ (b) Referral List

____ (c) Other (Please describe) _____

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#	— — — —

PID #:	__ __ __ __
Date:	__ __ / __ __ / __ __
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

CDDR: Customary Drinking and Drug Use Record

1. Have you ever used **marijuana**? Yes No
   (If No, skip to #5)

2. How old were you when you first began using marijuana? _____years old
3. How many times in your lifetime have you used marijuana? _____times
4. In the past 3 months, how many days did you use marijuana? _____days

5. Have you ever used **stimulants** (amphetamines, crystal meth, speed, Ritalin, Concerta)? Yes No
   (If No, skip to #9)

6. How old were you when you first began using stimulants? _____years old
7. How many times in your lifetime have you used stimulants? _____times
8. In the past 3 months, how many days did you use stimulants? _____days

9. Have you ever used **sedatives** (barbiturates, Valium, Xanax, Librium, downers, tranquilizers, etc.)? Yes No
   (If No, skip to #13)

10. How old were you when you first began using sedatives? _____years old
11. How many times in your lifetime have you used sedatives? _____times
12. In the past 3 months, how many days did you use sedatives? _____days

13. Have you ever used **hallucinogens** (LSD, mushrooms, ecstasy, peyote, mescaline, PCP etc.)? Yes No
    (If No, skip to #17)

14. How old were you when you first began using hallucinogens? _____years old
15. How many times in your lifetime have you used hallucinogens? _____times
16. In the past 3 months, how many days did you use hallucinogens? _____days

17. Have you ever used **cocaine** (or crack)? (If No, skip to #21) Yes No

18. How old were you when you first began using cocaine (or crack)? _____years old

19. How many times in your lifetime have you used cocaine (or crack)? _____times

20. In the past 3 months, how many days did you use cocaine (or crack)? _____days

21. Have you ever used **inhalants** (duster, amyl nitrates / "poppers," solvents, glue, gasoline, , nitrous oxide "whip-its/rush", white out, etc.)?
(If No, skip to #25) Yes No

22. How old were you when you first began using inhalants? _____years old

23. How many times in your lifetime have you used inhalants? _____times

24. In the past 3 months, how many days did you use inhalants? _____days

25. Have you ever used **opiates** (codeine, Vicodin, OxyContin, heroin, morphine, opium, etc.)? Yes No
(If No, skip to #29)

26. How old were you when you first began using opiates? _____years old

27. How many times in your lifetime have you used opiates? _____times

28. In the past 3 months, how many days did you use opiates? _____days

29. Have you ever used **Spice** (synthetic marijuana)? Yes No
(If No, skip to #33)

30. How old were you when you first began using Spice? _____years old

31. How many times in your lifetime have you used Spice? _____times

32. In the past 3 months, how many days did you use Spice? _____days

33. Have you ever used "**bath salts"** (for the purpose of intoxication)**?** Yes No
(If No, skip to #37)

34. How old were you when you first began using bath salts? _____years old

35. How many times in your lifetime have you used bath salts? _____times

36. In the past 3 months, how many days did you use bath salts? _____days

37. Is there **another drug** you have used? (tranquilizers,Valium, Librium, Atavan, prescribed sleeping pills, steroids, Viagra, etc.) Yes No
If Yes, Name of drug: _____ (If No, skip to #41)

38. How old were you when you first began using? _____years old

39. How many times in your lifetime have you used? _____ times

40. In the past 3 months, how many days did you use? _____days

41. Have you ever had a **prescription drug** (e.g. Percodan, Demerol, Darvon, antidepressants, etc.) that you took more than the prescribed dosage (took more than you should)? Yes No (If No, Skip to #44)

42. Number of times _____

43. Name of drug _____

44. Have you used any drugs **intravenously** (with a needle)? (If No, skip to #48) Yes No

45. Number of times _____

46. Name of Drug _____

47. Did you share a needle in the past 3 months? __Yes __No

48. In your lifetime, approximately how many times have you been stoned/high from drugs? _____number of times

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

PID #:	— — — —
Date:	— — / — — / — —
❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

Follow-Up Customary Drinking and Drug Use Record

1. Have you used **marijuana** in the past 90 days?

   Yes No If YES→ How many days? _____

2. Have you used **amphetamines/stimulants** (crystal meth, ice, crank, or speed)?

   Yes No If YES→ How many days? _____

3. Have you used **sedatives** (valium, xanax, Librium, quaaludes, etc.) in the past 90 dayss?

   Yes No If YES→ How many days? _____

4. Have you used **hallucinogens** (LSD, mushrooms, ecstasy, mescaline, etc.) in the past 90 days ?

   Yes No If YES→ How many days? _____

5. Have you used **cocaine** (or crack) in the past 90 days?

   Yes No If YES→ How many days? _____

6. Have you used **inhalants** (duster, "poppers," solvents, glue , nitrous oxide/"Whip-its," etc.) in the past 90 days?

   Yes No If YES→ How many days? _____

7. Have you used **opiates** (morphine , codeine, Vicodin, OxyContin, Percocet etc.) in the past 90 days?

   Yes No If YES→ How many days? _____

8. Have you used **Spice** (synthetic marijuana) in the past 90 days?

   Yes No If YES→ How many days? _____

9. Have you used **MDPV/"Bath Salts**" in the past 90 days**?**

   Yes No If YES→ How many days? _____

10. Is there **another drug** you have used? (tranquilizers,Valium, , Atavan, prescribed sleeping pills, steroids, Viagra, etc.) in the past 90 days?

    Yes No If YES, Name of drug: _____ How many days? _____

11. Have you had a **prescription drug** (e.g. Percodan, Demerol, Darvon, antidepressants, etc.) that you took more than the prescribed dosage (took more than you should) in the past 90 days?

    Yes No If YES→ How many days? _____

12. Have you used any drugs **intravenously** (with a needle) in the past 90 days?

    Yes No If YES→ How many days? _____

    If YES, did you share a needle in the past 4 months? Yes No

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

-5 Valid skip
-6 Refused
-7 Don't know
-8 Not applicable
-9 Missing

PID #:	— — — —
Date:	— — / — — / — —
❒ **BL** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

DAILY DRINKING QUESTIONNAIRE

This questionnaire asks you to consider your drinking behavior.

1 Drink = 12 ounce bottle/can of beer = 5 ounce glass of wine = 1 shot of hard alcohol

1. Consider a typical week during the past 30 days. How much alcohol, on average (measured in number of drinks), do you drink on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

2. Consider a typical week during the past 30 days. Over how many hours do you drink the above number of drinks?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

3. How often have you consumed alcohol during the past 30 days?

❑ Never
❑ Once a month
❑ Two times a month
❑ Three times a month
❑ Once a week
❑ Twice a week
❑ Three times a week
❑ Four times a week
❑ Five times a week
❑ Six times a week
❑ Every day

4. How many drinks on average have you consumed on a given occasion during the past 30 days?

❑ 0 drinks
❑ 1 drink
❑ 2 drinks
❑ 3 drinks
❑ 4 drinks
❑ 5 drinks
❑ 6 drinks
❑ 7 drinks
❑ 8 drinks
❑ 9 drinks
❑ 10 drinks
❑ 11 drinks
❑ 12 drinks
❑ 13 drinks
❑ 14 drinks
❑ 15 drinks
❑ 16 drinks
❑ 17 drinks
❑ 18 drinks
❑ 19 drinks
❑ 20 drinks
❑ 21 drinks
❑ 22 drinks
❑ 23 drinks
❑ 24 drinks
❑ 25 or more drinks

-5 Valid skip
-6 Refused
-7 Don't know
-8 Not applicable
-9 Missing

PID #:	— — — —
Date:	— — / — — / — —
❒ **BL** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

DAILY DRINKING QUESTIONNAIRE

5. Think of the occasion you drank the most during the past 30 days. How much did you drink?
   Number of drinks ___ ___

6. Think of the occasion you drank the most during the past 30 days. How many hours did you spend drinking on that occasion?
   Number of hours ___ ___

7. During the past month, how often have you had - five or more drinks for men - four or more drinks for women - at one sitting?

❑ Never
❑ Once a month
❑ Two times a month
❑ Three times a month
❑ Once a week
❑ Twice a week
❑ Three times a week
❑ Four times a week
❑ Five times a week
❑ Six times a week
❑ Every day

8. How much money did you spend in a typical week on alcohol? _____

9. How much money did you spend in a typical week on _____?
   Drug of choice

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

Warrior Check-Up

Demographics

PID:	___ ___ ___ ___
DATE:	___ ___/___ ___/___ ___
☐ Screening	

1. **Gender:**	"Do you identify as Male or Female? ❒ M ❒ F	
2. **Age:**	"How old are you? ___ ___	
3. **Ethnicity:**	"Do you identify as Hispanic or Latino/a?" ❒ Hispanic or Latino ❒ Not Hispanic or Latino	
4. **Race:**	"With which racial group do you most identify?"	
	American Indian or Alaskan Native	❒ Yes ❒ No
	Asian/Asian American	❒ Yes ❒ No
	African American / Black	❒ Yes ❒ No
	Native Hawaiian or Pacific Islander	❒ Yes ❒ No
	Caucasian / White	❒ Yes ❒ No
	Other *Specify other race:*_____	❒ Yes ❒ No
5. **Deployments:**	"Have you been deployed while in the Army/Air Force?" ❒ Never been deployed ❒ Have been deployed before	
6. **Military Status:**	"What is your current military status?" ❒ Active duty ❒ Reserve ❒ National guard ❒ Individual augmentee	
7. **Military Branch:**	"Which branch of the military are you in?" ❒ Army ❒ Air Force ❒ Other _____	
8. **Rank:**	"What is your current rank?" a) ❒ Enlisted ❒ Warrant officer ❒ Officer b) Specify: _____	
9. **Military Occupation Specialty:**	"What is your MOS?" _____	
10. **Position:**	"What is your MOS in civilian terms?" _____	
11. **Years in Service:**	"How many years have you been in the Service?" ❒ <4 years ❒ 5-8 years ❒ 9-12 years ❒ 13-16 years ❒ ≥ 17 years	

12. **Expiration Term of Service**	"What is your ETS?" _____, 20___ ___
13. **Marital Status:**	"What is your current marital status?" ❒ Single ❒ Married ❒ Divorced ❒ Separated

14. **Education Level:**	"What is the highest level of education you have completed?" ❒ <12 years of school ❒ High school diploma/GED ❒ Some college ❒ 2 year degree (AA/AS) ❒ 4 year degree (BA/BS) ❒ Master's, doctorate, or professional school (MS/MA/PhD/MD/JD)
15. **Income Level:**	"What is your yearly income?" ❒ Less than $10,000 ❒ $11,000 - $20,000 ❒ $21,000 - $30,000 ❒ $31,000 - $40,000 ❒ $41,000 - $50,000 ❒ $51,000 - $60,000 ❒ $61,000 - $70,000 ❒$71,000 - $80,000 ❒ $81,000 - $90,000 ❒ $91,000 - $100,000 ❒ More than $100,000
16. **Religion:**	"Which of the following best describes your religious affiliation?" ❒ Buddhist ❒ Christian ❒ Hindu ❒ Jewish ❒ Muslim ❒ Nonreligious ❒ Other_____
17. **Weight:**	"How much do you weigh?" _____ pounds
18. **Parenting:**	"Who did you live with for the majority of the time when you were growing up?" ❒ Two parents together ❒ Two parents separately (e.g. joint custody situation) ❒ Single parent ❒ Relative ❒ Legal guardian
19. **Parenting Use:**	"When you were growing up, did your parents and/or the grownups in your household use any of the following excessively?" a) Alcohol ❒ Yes ❒ No b) Marijuana ❒ Yes ❒ No c) Other drugs, Specify:_____ ❒ Yes ❒ No
20. **Upcoming Deployments:**	a) "Is a deployment to Iraq, Kuwait, or Afghanistan likely to take place within the next 7 months?" ❒ Yes ❒ No b) "If yes, is it likely to be brief enough so that you would be back for the 3 and/or 6-month follow-up assessments?" ❒ Yes ❒ No ❒ N/A

Deployment History

21. **Please provide information about any OCONUS deployments you have had:**

	OPERATION NAME	COUNTRY	DATE DEPLOYED	NO. OF MONTHS DEPLOYED	LEVEL OF COMBAT
a. 1st Deployment					
b. 2nd Deployment					
c. 3rd Deployment					
d. 4th Deployment					
e. 5th Deployment					
f. 6th Deployment					
g. 7th Deployment					

Legal Status Questions

22. Have you ever been arrested and charged for a crime? ❒ Yes ❒ No

23. If yes, what for? Check all that apply.

a. Shoplifting, vandalism	❒ Yes ❒ No
a. Parole/probation violations	❒ Yes ❒ No
b. Drug charges	❒ Yes ❒ No
c. Forgery	❒ Yes ❒ No
d. Weapons offense	❒ Yes ❒ No
e. Burglary, larceny, B&E	❒ Yes ❒ No
f. Robbery	❒ Yes ❒ No
g. Assault	❒ Yes ❒ No
h. Arson	❒ Yes ❒ No

i. Rape	❒ Yes ❒ No
j. Homicide, manslaughter	❒ Yes ❒ No
k. Prostitution	❒ Yes ❒ No
l. Contempt of court	❒ Yes ❒ No
m. Other	❒ Yes ❒ No

Substance Abuse Treatment History Questions

24. **Are you currently enrolled in substance abuse treatment?**	❒ No ❒ Yes
If yes, what type of treatment?	❒ Detox
	❒ Inpatient
	❒ Intensive outpatient
	❒ Outpatient
25. **Have you ever participated in the following?**	
a. Self-help meeting, such as AA	❒ No ❒ Yes
b. Detox	❒ No ❒ Yes
	If yes, how many times? ___ ___
c. Inpatient	❒ No ❒ Yes
	If yes, how many times? ___ ___
d. Intensive outpatient	❒ No ❒ Yes
	If yes, how many times? ___ ___
e. Outpatient	❒ No ❒ Yes
	If yes, how many times? ___ ___

Data collection staff ID#:	__ __ __ __
Data entry staff ID#:	__ __ __ __
Data verification staff ID#:	__ __ __ __

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

DRINKING NORMS RATING FORM

This questionnaire asks you to estimate typical drinking behaviors among active duty military personnel and civilians. Note: For military specific questions, insert appropriate branch of the military: Army or Air Force

1 Drink = 12 ounce bottle/can of beer = 5 ounce glass of wine = 1 shot of hard alcohol

1. Consider a typical week during the past 30 days. How much alcohol, (measured in number of drinks), do you think **the average military person in the (Army or Air Force)** drinks on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

2. How often do you think the **average military person in the (Army or Air Force)** consumes alcohol?

❒ Never
❒ Less than once per month
❒ Once a month
❒ Two times a month
❒ Three times a month
❒ Once a week
❒ Twice a week
❒ Three times a week
❒ Four times a week
❒ Five times a week
❒ Six times a week
❒ Every day

3. How many drinks do you think the **average military person in the (Army or Air Force)** consumes on a given occasion?

❒ 0 drinks
❒ 1 drink
❒ 2 drinks
❒ 3 drinks
❒ 4 drinks
❒ 5 drinks
❒ 6 drinks
❒ 7 drinks
❒ 8 drinks
❒ 9 drinks
❒ 10 drinks
❒ 11 drinks
❒ 12 drinks
❒ 13 drinks
❒ 14 drinks
❒ 15 drinks
❒ 16 drinks
❒ 17 drinks
❒ 18 drinks
❒ 19 drinks
❒ 20 drinks
❒ 21 drinks
❒ 22 drinks
❒ 23 drinks
❒ 24 drinks
❒ 25 or more drinks

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

DRINKING NORMS RATING FORM

4. During the past 30 days, on the occasion they drank the most, how many drinks do you think the **average military person in the (Army or Air Force)** consumed?

   Number of drinks ___ ___

5. During the past 30 days, what percentage of **active duty military personnel in the (Army or Air Force)** do you think have consumed five or more drinks (for men) or four or more drinks (for women) at least once?

   ___ ___%

6. During the past year, what percentage of **active duty military personnel in the (Army or Air Force)** do you think have used the following substances?

   a. Marijuana ___ ___%

   b. Cocaine ___ ___%

   c. Stimulants ___ ___%

   d. Sedatives ___ ___%

   e. Hallucinogens ___ ___%

   f. Inhalants ___ ___%

   g. Opiates ___ ___%

   h. Spice (synthetic marijuana) ___ ___%

   i. MDPV (Bath Salts) ___ ___%

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

DRINKING NORMS RATING FORM

7. Consider a typical week during the past 30 days. How much alcohol, (measured in number of drinks), do you think the **average civilian person** drinks on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

8. How often do you think the **average civilian person** consumes alcohol?

- ❑ Never
- ❑ Less than once per month
- ❑ Once a month
- ❑ Two times a month
- ❑ Three times a month
- ❑ Once a week
- ❑ Twice a week
- ❑ Three times a week
- ❑ Four times a week
- ❑ Five times a week
- ❑ Six times a week
- ❑ Every day

9. How many drinks do you think the **average civilian person** consumes on a given occasion?

- ❑ 0 drinks
- ❑ 1 drink
- ❑ 2 drinks
- ❑ 3 drinks
- ❑ 4 drinks
- ❑ 5 drinks
- ❑ 6 drinks
- ❑ 7 drinks
- ❑ 8 drinks
- ❑ 9 drinks
- ❑ 10 drinks
- ❑ 11 drinks
- ❑ 12 drinks
- ❑ 13 drinks
- ❑ 14 drinks
- ❑ 15 drinks
- ❑ 16 drinks
- ❑ 17 drinks
- ❑ 18 drinks
- ❑ 19 drinks
- ❑ 20 drinks
- ❑ 21 drinks
- ❑ 22 drinks
- ❑ 23 drinks
- ❑ 24 drinks
- ❑ 25 or more drinks

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

DRINKING NORMS RATING FORM

10. During the past 30 days, on the occasion they drank the most, how many drinks do you think the **average civilian person** consumed?

    Number of drinks ___ ___

11. During the past 30 days, what percentage of **civilians** do you think have consumed five or more drinks (for men) or four or more drinks (for women) at least once?

    ___ ___%

12. During the past year, what percentage of **civilians** do you think have used the following substances?

    a. Marijuana ___ ___%

    b. Cocaine ___ ___%

    c. Stimulants ___ ___%

    d. Sedatives ___ ___%

    e. Hallucinogens ___ ___%

    f. Inhalants ___ ___%

    g. Opiates ___ ___%

    h. Spice (synthetic marijuana) ___ ___%

    i. MDPV (Bath Salts) ___ ___%

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

DRINKING NORMS RATING FORM

13. Consider a typical week during the past 30 days. How much alcohol, (measured in number of drinks), do you think the **average civilian man/woman** drinks on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

14. How often do you think the **average civilian man/woman** consumes alcohol?

❑ Never
❑ Less than once per month
❑ Once a month
❑ Two times a month
❑ Three times a month
❑ Once a week
❑ Twice a week
❑ Three times a week
❑ Four times a week
❑ Five times a week
❑ Six times a week
❑ Every day

15. How many drinks do you think the **average civilian man/woman** consumes on a given occasion?

❑ 0 drinks
❑ 1 drink
❑ 2 drinks
❑ 3 drinks
❑ 4 drinks
❑ 5 drinks
❑ 6 drinks
❑ 7 drinks
❑ 8 drinks
❑ 9 drinks
❑ 10 drinks
❑ 11 drinks
❑ 12 drinks
❑ 13 drinks
❑ 14 drinks
❑ 15 drinks
❑ 16 drinks
❑ 17 drinks
❑ 18 drinks
❑ 19 drinks
❑ 20 drinks
❑ 21 drinks
❑ 22 drinks
❑ 23 drinks
❑ 24 drinks
❑ 25 or more drinks

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

DRINKING NORMS RATING FORM

16. During the past 30 days, on the occasion they drank the most, how many drinks do you think the **average civilian man/woman** consumed?

    Number of drinks ___ ___

17. During the past 30 days, what percentage of **man/woman** do you think have consumed five or more drinks (for men) or four or more drinks (for women) at least once?

    ___ ___%

18. During the past year, what percentage of **man/woman** do you think have used the following substances?

    a. Marijuana ___ ___%

    b. Cocaine ___ ___%

    c. Stimulants ___ ___%

    d. Sedatives ___ ___%

    e. Hallucinogens ___ ___%

    f. Inhalants ___ ___%

    g. Opiates ___ ___%

    h. Spice (synthetic marijuana) ___ ___%

    i. MDPV (Bath Salts) ___ ___%

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

WARRIOR CHECK-UP	**PID #:** __ __ __ __
Exit From Military Questionnaire	**Date:** __ __ / __ __ / __ __
	❒ **3 mo. / ❒ 6 mo.**

1) Are you currently Active Duty Military?
   ❒Yes → Go to next questionnaire
   ❒ No → Go to Question 2

2) What was your date of separation (last day you served in active duty)? Date: _____/_____/_____

3) How was your discharge characterized?

   ❒ Honorable
   ❒ General (under honorable conditions)
   ❒ Other than Honorable (OTH)
   ❒ Bad Conduct Discharge (BCD)
   ❒ Dishonorable Discharge (DD)
   ❒ Entry Level Separation (ELS)

4) Was your discharge related to your use of alcohol, drugs or prescription medication?
   ❒Yes → Go to question 5 ❒ No → Go to next questionnaire

5) Do you mind telling me a little more about what led to your separation from the army?

_____

_____

_____

_____

_____

Data collection staff ID #:	__ __ __ __
Data entry staff ID#:	__ __ __ __
Data verification staff ID#:	__ __ __ __

WARRIOR CHECK-UP	**PID #:** __ __ __ __
GAD-7	**Date:** __ __ / __ __ / __ __
	❒ BL / ❒ 3 mo. / ❒ 6 mo.

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3
Add the score for each column				
	Total score = ___ ___			

If you have checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

❒ Not difficult at all

❒ Somewhat difficult

❒ Very difficult

❒ Extremely difficult

Data collection staff ID #:	__ __ __ __
Data entry staff ID#:	__ __ __ __
Data verification staff ID#:	__ __ __ __

PID #:	— — — —
Date:	— — / — — / — —
❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

General Causality Orientation Scale

The next set of questions contain a series of hypothetical sketches. Each sketch describes an incident and lists two ways of responding to it. As I read each sketch, imagine yourself in that situation, and then consider each of the possible responses. Think of each response option in terms of how likely it is that you would respond that way. I'd like you to use a scale of 1 to 7 where 1 is very unlikely, 4 is moderately likely, and 7 is very likely. You can use the full range of numbers between 1 and 7.

1. You have been offered a new position in a company where you have worked for some time. The first question that is likely to come to mind is:

a. Will I make more at this position?

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. I wonder if the new work will be interesting.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

2. You have a school-age daughter. On parents' night the teacher tells you that your daughter is doing poorly and doesn't seem involved in the work. You are likely to:

a. Talk it over with your daughter to understand further what the problem is.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Make sure she does the assignments, because she should be working harder.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

3. You had a job interview several weeks ago. In the mail you received a form letter which states that the position has been filled. It is likely that you might think:

a. It's not what you know, but who you know.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Somehow they didn't see my qualifications as matching their needs.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

CONTINUED…

4. You are a plant supervisor and have been charged with the task of allotting coffee breaks to three workers who cannot all break at once. You would likely handle this by:

a. Telling the three workers the situation and having them work with you on the schedule.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Simply assigning times that each can break to avoid any problems.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

5. A close (same sex) friend of yours has been moody lately, and a couple of times has become very angry with you over "nothing". You might:

a. Share your observations with him/her and try to find out what is going on for him/her.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Tell him/her that you're willing to spend time together if and only if he/she makes more effort to control him/herself.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

6. You have just received the results of a test you took, and you discovered that you did very poorly. Your initial reaction is likely to be:

a. "I wonder how it is I did so poorly," and feel disappointed.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. "That stupid test doesn't show anything," and feel angry.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

7. You have been invited to a large party where you know very few people. As you look forward to the evening, you would likely expect that:

a. You'll try to fit in with whatever is happening in order to have a good time and not look bad.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. You'll find some people with whom you can relate.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

8. You are asked to plan a picnic for yourself and your fellow employees. Your style for approaching this project could most likely be characterized as:

a. Take charge: You would make most of the major decisions yourself.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Seek participation: Get inputs from others who want to make them before you make the final plans.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

9. Recently a position opened up at your place of work that could have meant a promotion for you. However, a person you work with was offered the job rather than you. In evaluating the situation, you're likely to think:

a. The other person probably "did the right things" politically to get the job.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. You would probably take a look at factors in your own performance that led you to be passed over.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

10. You are embarking on a new career. The most important consideration is likely to be:

a. How interested you are in that kind of work.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Whether there are good possibilities for advancement.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

11. A woman who works for you has generally done an adequate job. However, for the past two weeks her work has not been up to par and she appears to be less actively interested in her work. Your reaction is likely to be:

a. Tell her that her work is below what is expected and that she should start working harder.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Ask her about the problem and let her know you are available to help work it out.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

12. Your company has promoted you to a position in a city far from your present location. As you think about the move you would probably:

a. Feel interested in the new challenge and a little nervous at the same time.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

b. Feel excited about the higher status and salary that is involved.

1 2 3 4 5 6 7

Very unlikely — Moderately likely — Very likely

Data collection staff ID #:	— — — —
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PID #:	__ __ __ __
Date:	__ __ / __ __ / __ __
☐ 1-Week	

WARRIOR CHECK-UP

Intervention Process Assessment

Hi _____, thank you for your time in answering this next questionnaire. It should only take about 5-10 minutes and you will receive $25 for your time.

As always, everything you talk about is fully and will never be linked to your name. will only be broken if you talk seriously about plans to harm yourself or someone else.

If consented to taping→ Previously, you agreed to allow us to audio-tape our conversations. Is that still okay with you? NO YES (Turn on Recorder)

In this questionnaire, we would like to get your impression of the telephone session you had with your counselor. Here, we have statements that describe some of the ways that people may think or feel about the experience or information they received. Please respond to each of the statements by chosing the number that indicates how you feel about the statement.

Your responses are and are not shared with your counselor.

1. Overall, how satisfied were you with the telephone session?

1	2	3	4	5
Very Dissatisfied	Moderately Dissatisfied	Neither Satisfied nor Dissatisfied	Moderately Satisfied	Very Satisfied

2. How satisfied were you with the counselor you talked with?

1	2	3	4	5
Very Dissatisfied	Moderately Dissatisfied	Neither Satisfied nor Dissatisfied	Moderately Satisfied	Very Satisfied

3. Getting information about substance use and its consequences was . . .

1	2	3	4	5
Extremely Helpful	Moderately Helpful	Neither Helpful nor Unhelpful	Moderately Unhelpful	Extremely Unhelpful

4. My counselor was . . .

1	2	3	4	5
Extremely Helpful	Moderately Helpful	Neither Helpful nor Unhelpful	Moderately Unhelpful	Extremely Unhelpful

5. Were there any other aspects of this project that were helpful to you? Please check all that apply.

_____ (a) Convenient timing of sessions

_____ (b) of sessions

_____ (c) Free information

_____ (d) Knowing I would get compensated for participating in this project

_____ (e) Participating in a research study was interesting

_____ (f) Telephone-based

_____ (g) Other (please describe)

_____

_____

_____

_____

6. Were there aspects of this project that were a problem or were not helpful to you? Please check all that apply.

____ (a) The assessment took too much time

____ (b) The sessions took too much time

____ (c) The appointments were scheduled at inconvenient times

____ (d) I felt pressured to participate in the study by someone

____ (e) I wanted a type of information not offered by this project (please describe):

_____

_____

____ (f) Other: please share any comments or suggestions you may have for improving the project:

_____

_____

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
7. I felt uncomfortable with him/her.	1	2	3	4	5
8. What I did in the session gave me a new way of looking at my substance use.	1	2	3	4	5
9. I felt he/she understood me and my feelings about my substance use.	1	2	3	4	5
10. I believe he/she liked me.	1	2	3	4	5
11. I believe the time I spent with him/her was used efficiently.	1	2	3	4	5
12. I believe that he/she genuinely cared about me as a person.	1	2	3	4	5
13. I believe the counselor and I had different opinions about my substance use.	1	2	3	4	5
14. I feel that he/she appreciated my attending the session.	1	2	3	4	5
15. I felt that he/she paid attention to me.	1	2	3	4	5
16. I feel that the counselor was not totally honest about his/her feelings toward me.	1	2	3	4	5

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
17. If I choose to make some changes, I am now clearer as to how I might be able to change.	1	2	3	4	5
18. I felt that he/she respected my feelings and attitudes towards my substance use.	1	2	3	4	5
19. He/She tried to convince me to quit using substances.	1	2	3	4	5
20. I felt that he/she was judgmental of me and my attitudes towards my use of substance.	1	2	3	4	5
21. I felt my meeting with him/her was a waste of time.	1	2	3	4	5
22. I felt that he/she cared about me even when I did things of which he/she did not approve.	1	2	3	4	5
23. I felt that he/she talked about issues that were important to me.	1	2	3	4	5

Thank you for completing this questionnaire.

<<Confirm mailing address and method of payment.>>

Data collection Staff ID#	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

V2 9.1.11

PID #:	__ __ __ __
Date:	__ __ / __ __ / __ __
❒ **BL**	

WARRIOR CHECK-UP

LIFE GOALS ASSESSMENT

We are interested in the things that you are trying to do or would like to accomplish in the future. In other words, the goals you have in different areas of your life.

Here are some examples of goals:

- Trying to get along with others
- Trying to develop my spirituality
- Trying to help others in need of help
- Trying to seek new and exciting experiences
- Trying to avoid feeling inferior to others
- Trying to develop and maintain close relationships
- Trying to avoid conflict with my spouse or partner
- Trying to advance in my career

Goals are things that you are "trying" to do, whether or not you are actually successful is not important. For example, you might "try to save money" without necessarily being successful.

These goals may be broad, such as "trying to make others happy" or more specific "trying to make my partner happy". Also note that goal can be either positive or negative. That is, they may be about something you typically try to get or keep, or things that you typically try to avoid or prevent. For example, you might typically try to obtain attention from others, or you might typically try to avoid calling attention to yourself.

You might find it useful to think about your goals in different domains of your life: work and school, home and family, social relationships, and leisure/recreation. Think about all of your desires, goals, wants, and hopes in these different areas.

Since you may have never thought of yourself in this way before, think carefully about what we are asking you to do before you write anything down. Remember this is about you and not about comparing yourself to others. Be as honest and as objective as possible.

PID #:	__ __ __ __
Date:	__ __ / __ __ / __ __
❒ **BL**	

WARRIOR CHECK-UP

LIFE GOALS ASSESSMENT

Follow These Steps

STEP 1: In the first column, write three goals in the spaces provided.

STEP 2: In the second column, rank order your goals from most important (1) to least important (3).

STEP 3: In the third column, rate how you think your current [alcohol/substance use] affects each of your goals by writing in the appropriate number. *Note: If you have recently stopped or reduced your substance use, then indicate how this changed use pattern (either reduced use or non-use) has affected each of your goals.*

1	2	3	4	5
Very Positively	Positively	Neutrally	Negatively	Very Negatively

STEP 4: In the fourth column, rate how you think reducing your [alcohol/substance use] would affect each of your goals by writing in the appropriate number. *Note: If you have recently stopped, please leave this column blank.*

1	2	3	4	5
Very Positively	Positively	Neutrally	Negatively	Very Negatively

PID #:	__ __ __ __
Date:	__ __ / __ __ / __ __
❒ **BL**	

WARRIOR CHECK-UP

LIFE GOALS ASSESSMENT

List of goals	Rank	How current use affects goals	How reducing use would affect goals
1.			
2.			
3.			
4.			
5.			

Data collection staff ID #:	__ __ __ __
Data entry staff ID#:	__ __ __ __
Data verification staff ID#:	__ __ __ __

PID #:	— — — —
Date:	__ __ / __ __ / __ __
❒ **Screening**	

WARRIOR CHECK-UP

Marketing Exposure Questionnaire

Where did you hear about the Warrior Check-Up?

Please check all that apply:

☐ (1) Print advertising in newspaper, Which:_____

☐ (2) Read a news story in newspaper, Which:_____

☐ (3) Heard a radio ad, Station:_____

☐ (4) Saw ad or news coverage on television, Where:_____

☐ (5) Website/Internet, Site:_____

☐ (6) Family or friend

☐ (7) Health care provider, what type: _____

☐ (8) Counselor (psychiatrist, psychologist, social worker)

☐ (9) Social Service Agency, Which: _____

☐ (10) Clergy

☐ (11) Bus, Specify: _____

☐ (12) Saw a banner, Where: _____

☐ (13) Military Leader, Who: _____

☐ (14) Unit Prevention Leader

☐ (15) Reintegration Briefing

☐ (16) Email distribution list, Which: _____

☐ (17) Email, from where: _____

☐ (18) Plasma TV ad, Where: _____

☐ (19) Soldier readiness processing

☐ (20) Other, Specify:_____

☐ (21) Don't remember

(Over)

☐ (22) Saw a flyer or ad card at (check all that apply):

a) ☐ Waller Hall
b) ☐ Gym, Where: _____
c) ☐ Club, Which: _____
d) ☐ Eatery, Which: _____
e) ☐ Medical clinic, Which: _____
f) ☐ Madigan Hospital, Unit: _____
g) ☐ Company area
h) ☐ Library, Which: _____
i) ☐ Bowling alley
j) ☐ Other: _____

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

PID #:	— — — —
Date:	— — / — — / — —
	❒ **BL** / ❒ **3 mo.** / ❒ **6 mo.**

WARRIOR CHECK-UP

MODIFIED DRINKING MOTIVES QUESTIONNAIRE

Below is a list of reasons people sometimes give for drinking alcohol. **Thinking of all the times you drink, how often would you say you drink for each of the following reasons?** Please indicate your response next to each item according to the following scale.

1	2	3	4	5
Never/almost never	Some of the time	Half the time	Most of the time	Almost always/always

1. To forget your worries.	1	2	3	4	5
2. Because your friends pressure you to drink.	1	2	3	4	5
3. Because it helps you enjoy a party.	1	2	3	4	5
4. Because it helps you when you are feeling nervous	1	2	3	4	5
5. Because it helps you when you are feeling depressed.	1	2	3	4	5
6. To be sociable.	1	2	3	4	5
7. To cheer you up when you are in a bad mood.	1	2	3	4	5
8. Because you like the feeling.	1	2	3	4	5
9. So that others won't kid you about *not* drinking.	1	2	3	4	5
10. To stop you from feeling so hopeless about the future.	1	2	3	4	5
11. To reduce your anxiety.	1	2	3	4	5
12. Because it's exciting.	1	2	3	4	5
13. To get high.	1	2	3	4	5
14. Because it makes social gatherings more fun.	1	2	3	4	5
15. To numb your pain.	1	2	3	4	5
16. To fit in with a group you like.	1	2	3	4	5
17. Because it gives you a pleasant feeling	1	2	3	4	5

1	2	3	4	5
Never/almost never	Some of the time	Half the time	Most of the time	Almost always/always

18. To turn off negative thoughts about yourself.	1	2	3	4	5
19. Because it improves parties and celebrations.	1	2	3	4	5
20. Because it makes you feel more self-confident or sure of yourself.	1	2	3	4	5
21. To celebrate a special occasion with friends.	1	2	3	4	5
22. To relax.	1	2	3	4	5
23. To stop you from dwelling on things.	1	2	3	4	5
24. Because it's fun.	1	2	3	4	5
25. To be liked.	1	2	3	4	5
26. To help you feel more positive about things in your life.	1	2	3	4	5
27. So you won't feel left out.	1	2	3	4	5
28. To forget painful memories.	1	2	3	4	5

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WARRIOR CHECK-UP	PID #:	— — — —
	Date:	— — / — — / — —
PHQ-9	❒ BL / ❒ 3 mo. / ❒ 6 mo.	

1. Over the last two weeks, how often have you been bothered by any of the following problems? Read each item carefully, and circle your response.

	Not at all	Several days	More than half the days	Nearly every day
a. Little interest or pleasure in doing things	1	2	3	4
b. Feeling down, depressed, or hopeless.	1	2	3	4
c. Trouble falling asleep, staying asleep, or sleeping too much.	1	2	3	4
d. Feeling tired or having little energy.	1	2	3	4
e. Poor appetite or overeating.	1	2	3	4
f. Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down.	1	2	3	4
g. Trouble concentrating on things such as reading the newspaper or watching television.	1	2	3	4
h. Moving or speaking so slowly that other people could have noticed. Or, being so fidgety or restless that you have been moving around a lot more than usual.	1	2	3	4
i. Thinking that you would be better off dead or that you want to hurt yourself in some way.	1	2	3	4

2. If you checked off any problem on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

❒ Not difficult at all
❒ Somewhat difficult
❒ Very difficult
❒ Extremely difficult

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❒ BL / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

PCL-S: MONTHLY

Instructions

1. Consider the most stressful event you have experienced:_____

   _____.

2. Here is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, and then indicate, using the numbers to the right, how much you have been bothered by that problem in the past **month**.

	Not at all	**A little bit**	**Moderately**	**Quite a bit**	**Extremely**
1. Repeated, disturbing memories, thoughts, or images, of the stressful experience.	1	2	3	4	5
2. Repeated, disturbing dreams of the stressful experience.	1	2	3	4	5
3. Suddenly acting or feeling as if the stressful experience was happening again (as if you were reliving it).	1	2	3	4	5
4. Feeling very upset when something reminded you of the stressful experience.	1	2	3	4	5
5. Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience.	1	2	3	4	5
6. Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it.	1	2	3	4	5
7. Avoiding activities or situations because they reminded you of the stressful experience.	1	2	3	4	5
8. Trouble remembering important parts of the stressful experience.	1	2	3	4	5

	Not at all	A little bit	Moderately	Quite a bit	Extremely
9. Loss of interest in activities that you used to enjoy.	1	2	3	4	5
10. Feeling distant or cut off from other people.	1	2	3	4	5
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	1	2	3	4	5
12. Feeling as if your future will somehow be cut short.	1	2	3	4	5
13. Trouble falling or staying asleep.	1	2	3	4	5
14. Feeling irritable or having angry outbursts.	1	2	3	4	5
15. Having difficulty concentrating.	1	2	3	4	5
16. Being "super-alert" or watchful or on guard.	1	2	3	4	5
17. Feeling jumpy or easily startled.	1	2	3	4	5

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WARRIOR CHECK-UP

POST-DEPLOYMENT SOCIAL SUPPORT

The next set of statements refers to social support after deployment. First of all, have you been deployed while in the Armed Forces?

Circle: **Yes** <continue questionnaire> **No** <skip questionnaire>

Please decide how much you agree or disagree with each statement and circle the number that best fits your choice.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1. The reception I received when I returned from my deployment made me feel appreciated for my efforts.	1	2	3	4	5
2. The American people made me feel at home when I returned.	1	2	3	4	5
3. When I returned, people made me feel proud to have served my country in the Armed Forces.	1	2	3	4	5
4. I am carefully listened to and understood by family members or friends.	1	2	3	4	5
5. Among my friends or relatives, there is someone who makes me feel better when I am feeling down.	1	2	3	4	5
6. I have problems that I can't discuss with family or friends.	1	2	3	4	5
7. Among my friends or relatives, there is someone I go to when I need good advice.	1	2	3	4	5
8. People at home just don't understand what I have been through while in the Armed Forces.	1	2	3	4	5

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
9. There are people to whom I can talk about my deployment experiences.	1	2	3	4	5
10. The people I work with respect the fact that I am a veteran.	1	2	3	4	5
11. My supervisor understands when I need time off to take care of personal matters.	1	2	3	4	5
12. My friends or relatives would lend me money if I needed it.	1	2	3	4	5
13. My friends or relatives would help me move my belongings if I needed to.	1	2	3	4	5
14. When I am unable to attend to daily chores, there is someone who will help me with these tasks.	1	2	3	4	5
15. When I am ill, friends or family members will help out until I am well.	1	2	3	4	5

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WARRIOR CHECK-UP

Short Inventory of Problems_Alcohol and Drugs

Below are a number of events that people sometimes experience. Let me know if this has:

- **never happened to you**
- **happened to you in your lifetime, but not in the past 90 days**
- **happened to you in the past 90 days**

	Never	Yes, in lifetime – NOT in the past 90 days	Yes, in past 90 days
1. I have been unhappy because of my drinking or drug use.	0	1	2
2. Because of my drinking or drug use, I have not eaten properly.	0	1	2
3. I have failed to do what is expected of me because of my drinking or drug use.	0	1	2
4. I have felt guilty or ashamed because of my drinking or drug use.	0	1	2
5. I have taken foolish risks when I have been drinking or used other drugs.	0	1	2
6. When drinking or using other drugs, I have done impulsive things that I regretted later.	0	1	2
7. My physical health has been harmed by my drinking or drug use.	0	1	2
8. I have had money problems because of my drinking or drug use.	0	1	2
9. My physical appearance has been harmed by my drinking or drug use.	0	1	2
10. My family has been hurt by my drinking or drug use.	0	1	2
11. A friendship or close relationship has been damaged by my drinking or drug use.	0	1	2
12. My drinking or drug use has gotten in the way of my growth as a person.	0	1	2
13. My drinking or drug use has damaged my social life, popularity, or reputation.	0	1	2

	Never	Yes, in lifetime – NOT in the past 90 days	Yes, in past 90 days
14. I have spent too much or lost a lot of money because of my drinking or drug use.	0	1	2
15. I have had an accident while drinking, intoxicated, or high.	0	1	2
16. I did not get promoted because of my drinking or drug use.	0	1	2
17. I got a lower score of efficiency report or performance rating because of my drinking or drug use.	0	1	2
18. I got called up during off duty hours and reported to work drunk or high because of my drinking or drug use.	0	1	2
19. I received Uniform Code of Military Justice punishment because of drinking or drug use.	0	1	2
20. I have spent time in jail, stockade, or brig because of my drinking or drug use.	0	1	2
21. I had a drop in my Physical Training Score because of drinking or drug use.	0	1	2
22. Other _____ _____	0	1	2

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Date:	— — / — — / — —
❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

Follow-UP
Short Inventory of Problems_Alcohol and Drugs

Below are a number of events that people sometimes experience. Let me know if this has happened to you in the past 90 days.

1. I have been unhappy because of my drinking or drug use.	YES	NO
2. Because of my drinking or drug use, I have not eaten properly.	YES	NO
3. I have failed to do what is expected of me because of my drinking or drug use.	YES	NO
4. I have felt guilty or ashamed because of my drinking or drug use.	YES	NO
5. I have taken foolish risks when I have been drinking or used other drugs.	YES	NO
6. When drinking or using other drugs, I have done impulsive things that I regretted later.	YES	NO
7. My physical health has been harmed by my drinking or drug use.	YES	NO
8. I have had money problems because of my drinking or drug use.	YES	NO
9. My physical appearance has been harmed by my drinking or drug use.	YES	NO
10. My family has been hurt by my drinking or drug use.	YES	NO
11. A friendship or close relationship has been damaged by my drinking or drug use.	YES	NO
12. My drinking or drug use has gotten in the way of my growth as a person.	YES	NO
13. My drinking or drug use has damaged my social life, popularity, or reputation.	YES	NO
14. I have spent too much or lost a lot of money because of my drinking or drug use.	YES	NO
15. I have had an accident while drinking, intoxicated, or high.	YES	NO
16. I did not get promoted because of my drinking or drug use.	YES	NO

17. I got a lower score of efficiency report or performance rating because of my drinking or drug use.	YES	NO
18. I got called up during off duty hours and reported to work drunk or high because of my drinking or drug use.	YES	NO
19. I received Uniform Code of Military Justice punishment because of drinking or drug use.	YES	NO
20. I have spent time in jail, stockade, or brig because of my drinking or drug use.	YES	NO
21. I had a drop in my Physical Training Score because of drinking or drug use.	YES	NO
22. Any other problems due to drinking or drug use: _____ _____	YES	NO

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❒ **BL** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

SMALL UNIT IDENTIFICATION

Please read each statement carefully, and respond by using the following scale from 1 to 5.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Trust among soldiers	
1. In this unit, soldiers really look out for each other.	
2. Most of the soldiers in my unit can be trusted.	
3. Soldiers in my unit feel close to each other.	
4. Most soldiers in my unit would lend me money in an emergency.	
Trust in leaders	
1. Unit leaders develop a strong sense of loyalty and commitment in me.	
2. Unit leaders give every soldier personal attention.	
3. I would go for help with a personal problem to my unit leaders.	
4. My unit leaders are interested in my personal welfare.	

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WARRIOR CHECK-UP

SOCIAL DESIRABILITY SCALE

I am going to read you a list of statements concerning personal attitudes and traits. Decide whether the statement is true or false as it pertains to you personally.

	True	False
1. I never hesitate to go out of my way to help someone in trouble.	1	2
2. I have never intensely disliked anyone.	1	2
3. There have been times when I was quite jealous of the good fortune of others.	1	2
4. I would never think of letting someone else be punished for my wrong doings.	1	2
5. I sometimes feel resentful when I don't get my way.	1	2
6. There have been times when I felt like rebelling against people in authority even though I knew they were right.	1	2
7. I am always courteous, even to people who are disagreeable.	1	2
8. When I don't know something I don't at all mind admitting it.	1	2
9. I can remember "playing sick" to get out of something.	1	2
10. I am sometimes irritated by people who ask favors of me.	1	2

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WARRIOR CHECK-UP

PERSONAL ALCOHOL USE QUESTIONNAIRE (SOCRATES 8A)

Circle only one:	**Strongly Disagree**	**Disagree**	**Undecided or Unsure**	**Agree**	**Strongly Agree**
1. I really want to make some changes in my use of alcohol.	1	2	3	4	5
2. Sometimes I wonder if I am an alcoholic.	1	2	3	4	5
3. If I don't change my alcohol use soon, my problems are going to get worse.	1	2	3	4	5
4. I have already started making some changes in my use of alcohol.	1	2	3	4	5
5. I was using alcohol too much at one time, but I've managed to change that.	1	2	3	4	5
6. Sometimes I wonder if my alcohol use is hurting other people.	1	2	3	4	5
7. I have an alcohol problem.	1	2	3	4	5
8. I'm not just thinking about changing my alcohol use, I'm already doing something about it.	1	2	3	4	5
9. I have already changed my alcohol use, and I am looking for ways to keep from slipping back to my old pattern.	1	2	3	4	5
10. I have a serious problem with alcohol.	1	2	3	4	5

	Strongly Disagree	Disagree	Undecided or Unsure	Agree	Strongly Agree
11. Sometimes I wonder if I am in control of my alcohol use.	1	2	3	4	5
12. My alcohol use is causing a lot of harm.	1	2	3	4	5
13. I am actively doing things now to cut down or stop my use of alcohol.	1	2	3	4	5
14. I want help to keep from going back to the alcohol problems that I had before.	1	2	3	4	5
15. I know that I have an alcohol problem.	1	2	3	4	5
16. There are times when I wonder if I use alcohol too much.	1	2	3	4	5
17. I am an alcoholic.	1	2	3	4	5
18. I am working hard to change my alcohol use.	1	2	3	4	5
19. I have made some changes in my alcohol use, and I want some help to keep from going back to the way I used before.	1	2	3	4	5

Data collection staff ID #:	__ __ __ __
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❒ **BL** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

PERSONAL DRUG USE QUESTIONNAIRE (SOCRATES 8D)

[Here we are **asking about PT's Drug of Choice**. Replace "drug(s)" with their DOC]

Circle only one:	**Strongly Disagree**	**Disagree**	**Undecided or Unsure**	**Agree**	**Strongly Agree**
1. I really want to make some changes in my use of drugs.	1	2	3	4	5
2. Sometimes I wonder if I am an addict.	1	2	3	4	5
3. If I don't change my drug use soon, my problems are going to get worse.	1	2	3	4	5
4. I have already started making some changes in my use of drugs.	1	2	3	4	5
5. I was using drugs too much at one time, but I've managed to change that.	1	2	3	4	5
6. Sometimes I wonder if my drug use is hurting other people.	1	2	3	4	5
7. I have a drug problem.	1	2	3	4	5
8. I'm not just thinking about changing my drug use, I'm already doing something about it.	1	2	3	4	5
9. I have already changed my drug use, and I am looking for ways to keep from slipping back to my old pattern.	1	2	3	4	5
10. I have a serious problem with drugs.	1	2	3	4	5

11. Sometimes I wonder if I am in control of my drug use.	1	2	3	4	5
12. My drug use is causing a lot of harm.	1	2	3	4	5
13. I am actively doing things now to cut down or stop my use of drugs.	1	2	3	4	5
14. I want help to keep from going back to the drug problems that I had before.	1	2	3	4	5
15. I know that I have a drug problem.	1	2	3	4	5
16. There are times when I wonder if I use drugs too much.	1	2	3	4	5
17. I am a drug addict.	1	2	3	4	5
18. I am working hard to change my drug use.	1	2	3	4	5
19. I have made some changes in my drug use, and I want some help to keep from going back to the way I used before.	1	2	3	4	5

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❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

Anchor Date

"For this questionnaire, we will need you to focus on the past 90 days. So, I want you to think about the period of time between <<Anchor Date>> and today"

Anchor Date: ___ ___/___ ___/___ ___ ___ ___
mm-dd-yyyy

"Are there any memorable events that happened during that time? (Birthdays, anniversaries, vacations or trips, etc). This is to help jog your memory about that past 90-day period."

Describe the period of time to the participant on the phone. Make note of holidays that have occurred during the time frame and ask the subject about personal days during that time period (i.e. family member birthday, anniversary, vacations or trips, etc.).

Alcohol Module

Before we get started on some very specific questions about your alcohol use in the past 90 days, I want to review what we are considering a single, standard alcoholic drink.

A 12 oz can of beer = a 5 oz. glass of wine = a shot of hard alcohol

Warm Up: Before we get started, why don't you tell me a little bit about your alcohol use?

1. During the past 90 days, has there been a day when you drank any alcohol drinks?
   ❒ (1) Yes
   ❒ (0) No ⟹ Go to Drug Use Module (p. 12)

Now I am going to ask you some specific questions about your use of alcohol during the past 90 days.

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

ALCOHOL ABUSE

1. In the past 90 days have you missed work or school because you were intoxicated? ❒ (1) Yes ❒ (0) No What about doing a bad job at work or failing courses at school because of your drinking? ❒ (1) Yes ❒ (0) No What about not keeping your house clean or not taking proper care of your children because of your drinking? ❒ (1) Yes ❒ (0) No IF YES TO ANY, How often did this occur? _____	Code for past 90 days: 3 2 1 ?	*(1) Recurrent (2 or more times) alcohol use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to alcohol use; alcohol related absences, suspensions, or expulsions from school; neglect of children or household).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

2. In the past 90 days, did you drink in a situation in which it might have been dangerous to drink at all? ❒ (1) Yes ❒ (0) No Did you drive while you were really too intoxicated or drunk to drive? ❒ (1) Yes ❒ (0) No IF YES TO EITHER, How often did this occur? _____	Code for past 90 days: 3 2 1 ?	*(2) Recurrent (2 or more times) alcohol use in situations* in *which it is physically hazardous (e.g., driving any vehicle such as an automobile, motorcycle, boat, or operating dangerous equipment like a lawnmower, chain saw, stove, gun, tractor, snow cat, or even skiing, swimming, biking, or taking care of children, etc. when impaired by alcohol).*
3. Has your drinking gotten you into trouble with the law during the past 90 days? ❒ (1) Yes ❒ (0) No IF YES, How often did this occur? _____ Times	Code for past 90 days: 3 2 1 ?	*(3) Recurrent (2 or more times) alcohol-related legal problems (e.g., arrests for alcohol related disorderly conduct).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

4. Has your drinking ever caused you problems with other people, such as with family members, friends, or people at work? ❒ (1) Yes ❒ (0) No Have you gotten into physical fights or had bad arguments about your drinking? ❒ (1) Yes ❒ (0) No IF YES TO EITHER, Have you experienced these problems during the past 90 days? ❒ (1) Yes ❒ (0) No IF YES, Did you keep on drinking anyway? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(4) Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol (e.g., arguments with spouse about consequences of intoxication, physical fights).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

5. RECORD THE NUMBER OF ITEMS (1-4) CODED "3" FROM PREVIOUS SECTION FOR PAST 90 DAYS.	Code Abuse for past 90 days: Total # "3's" ____	*If no abuse item (1-4) is coded "3", participant does not meet Alcohol Abuse criteria. Go to next section, Alcohol Dependence, and complete assessment.* *If 1 or more items (1-4) are coded "3," participant meets diagnosis of Alcohol Abuse. Go to next section, Alcohol Dependence, and complete assessment.*

ALCOHOL DEPENDENCE

1. During the past 90 days have you found that when you started using alcohol you ended up using much more of it than you were planning to? ❒ (1) Yes ❒ (0) No IF NO, What about using alcohol over a much longer period of time than you were planning to? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(1) Substances often taken in larger amounts OR over a longer period of time than the person intended.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

2. During the past 90 days, did you try to cut down or stop using alcohol? ❒ (1) Yes ❒ (0) No IF YES, During the past 90 days, did you actually ever cut down or stop using alcohol altogether? (How many times did you try to cut down or stop altogether?) ❒ (1) Yes ❒ (0) No IF NO, Did you have a desire to cut down? ❒ (1) Yes ❒ (0) No IF YES, Is this something you kept worrying about? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(2) Persistent desire or one or more unsuccessful attempts to cut down or control substance use.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

3. During the past 90 days did you spend a lot of time drinking alcohol or doing whatever you had to do to get it? ❒ (1) Yes ❒ (0) No Did it take you a long time to get back to normal or recover from its effects? (Did you spend a lot of time being hung over? How much time? As long as several hours?) ❒ (1) Yes ❒ (0) No	Past 90 days: 3 2 1 ?	*(3) A great deal of time spent in activities necessary to get the substance, spent focused on taking the substance or recovering from its effects.*
4. During the past 90 days did you use alcohol so often that you used it instead of working or spending time at hobbies or with your family or friends? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(4) Important social, occupational, or recreational activities given up or reduced because of substance use.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

5. Has alcohol ever caused you psychological problems, such as causing you to blackout, making you depressed or anxious, decreasing your concentration or memory abilities? ❒ (1) Yes ❒ (0) No Has alcohol ever caused you physical problems or made a physical problem worse? ❒ (1) Yes ❒ (0) No IF YES TO EITHER ABOVE: Have you experienced these difficulties during the past 90 days? ❒ (1) Yes ❒ (0) No IF YES, Did you keep on using alcohol anyway? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(5) Continued substance use despite knowledge of having a persistent or recurrent psychological or physical problem that is likely to have been caused or exacerbated by the use of the substance (e.g., recurrent cocaine use despite recognition of cocaine related depression).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ **SC** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

SCID Psychoactive SUD

6. Have you found that you currently (in the last 90 days) need to use a lot more alcohol in order to get high than you did when you first started using it regularly (3 or more times a week)? ❒ (1) Yes ❒ (0) No IF YES, How much more? IF NO, What about finding that when you use the same amount now (in the last 90 days), it has much less effect than when you started using regularly? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(6) Marked tolerance: need for markedly increased amounts of the substance (at least 50% increase) in order to achieve intoxication or desired effect with continued use of the same amount.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

7. During the past 90 days have you had a withdrawal symptom, that is, felt sick when you cut down or stopped using? ❒ (1) Yes ❒ (0) No IF YES, What symptom(s) did you have? _____ _____ IF NO, After not using alcohol for a few hours or more have you often used it to keep yourself from getting sick (WITHDRAWAL SX)? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(7) Characteristic withdrawal symptoms as manifested by either of the following:* *(a) the characteristic withdrawal syndrome for the substance* *(b) the same or a closely related substance is taken to relieve or avoid withdrawal symptoms.*
8. RECORD THE TOTAL NUMBER OF ITEMS (1-7) CODED "3" FROM THE DEPENDENCE SECTION FOR THE PAST 90 DAYS	Code dependence for the past 90 days: Total # "3's": ___	*If 2 or less dependence items (1-7) are coded "3," participant does not meet Alcohol Dependence criteria. Go to Drug Screener.* *If 3 or more items (1-7) are coded "3," participant meets Alcohol Dependence criteria. Go to Drug Screener.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	__ __ __ __
Date:	__ __ / __ __ / __ __
❒ **SC** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

SCID Psychoactive SUD

DRUG SCREENER
"I am going to read you a list of drugs. I would like you to tell me which of these drugs you have used since (anchor date), to get high, to sleep better, to lose weight, or to change your mood."

Substance	Drug	Number of days (past 90 days)	Max. # of days (1-month period)
Sedatives (*Valium, Xanax, Librium, Halcion, Hypnotics, Anxiolytics, Tranquilizers, Barbiturates*)		___ ___	___ ___
Stimulants (*Amphetamines, Chrystal Meth, Speed*)		___ ___	___ ___
Opioids (*Percocetheroin, codeine, Oxycontin, Vicodin Analgesics,*)		___ ___	___ ___
Cocaine (*or Crack Cocaine*)		___ ___	___ ___
Hallucinogens (*LSD, mescaline, mushrooms)*		___ ___	___ ___
Inhalants (*Duster, poppers, nitrous oxide, gasoline, solvents, nitrites)*		___ ___	___ ___
Cannabis		___ ___	___ ___
Spice (Synthetic Marijuana)		___ ___	___ ___
Bath Salts		___ ___	___ ___

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

Determining primary drug of use: *<<insert information pertaining to determining primary substance of use>>>*

Drug of Choice:_____

<<insert questions in following two modules in the same manner as Alcohol sections.>>>

DRUG ABUSE

1. In the past 90 days have you missed work or school because you were high or very hung over? ❒ (1) Yes ❒ (0) No What about doing a bad job at work or failing courses at school because of your <DRUG> use? ❒ (1) Yes ❒ (0) No What about not keeping your house clean or not taking proper care of your children because of your <DRUG> use? ❒ (1) Yes ❒ (0) No IF YES TO ANY, How often did this occur? _____	Code for past 90 days: 3 2 1 ?	*(1) Recurrent (2 or more times) drug use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to alcohol use; alcohol related absences, suspensions, or expulsions from school; neglect of children or household).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

2. In the past 90 days, did you use <DRUG> in a situation in which it might have been dangerous to use it at all? ❒ (1) Yes ❒ (0) No Did you drive while you were really too high to drive? ❒ (1) Yes ❒ (0) No IF YES TO EITHER, How often did this occur? _____	Code for past 90 days: 3 2 1 ?	*(2) Recurrent (2 or more times) substance use in situations in which it is physically hazardous (e.g., driving any vehicle such as an automobile, motorcycle, boat, or operating dangerous equipment like a lawnmower, chain saw, stove, gun, tractor, snow cat, or even skiing, swimming, biking, or taking care of children, etc. when impaired by alcohol).*
3. Has your <DRUG> use gotten you into trouble with the law during the past 90 days? ❒ (1) Yes ❒ (0) No IF YES, How often did this occur? _____ Times	Code for past 90 days: 3 2 1 ?	*(3) Recurrent (2 or more times) substance-related legal problems (e.g., arrests for substance related disorderly conduct).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

4. Has your <DRUG> use ever caused you problems with other people, such as with family members, friends, or people at work? ❒ (1) Yes ❒ (0) No Have you gotten into physical fights or had bad arguments about your <DRUG> use? ❒ (1) Yes ❒ (0) No IF YES TO EITHER, Have you experienced these problems during the past 90 days? ❒ (1) Yes ❒ (0) No IF YES, Did you keep on using <DRUG> anyway? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(4) Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the drug (e.g., arguments with spouse about consequences of intoxication, physical fights).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

5. RECORD THE NUMBER OF ITEMS (1-4 CODED "3" FROM ABUSE SECTION FOR PRIMARY DRUG USE PAST 90 DAYS.	Code Abuse for past 90 days: Total # "3's" ____	*If no abuse item (1-4) is coded "3", participant does not meet Drug Abuse criteria. Go to next section, Drug Dependence, and complete assessment.* *If 1 or more items (1-4) are coded "3," participant meets DSM-IV diagnosis of Drug Abuse. Go to next section, Drug Dependence, and complete assessment.*

DRUG DEPENDENCE

1. During the past 90 day have you found that when you started using <DRUG> you ended up using much more of it than you were planning to? ❒ (1) Yes ❒ (0) No IF NO, What about using <DRUG> over a much longer period of time than you were planning to? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(1) Substances often taken in larger amounts OR over a longer period of time than the person intended.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

2. During the past 90 days, did you try to cut down or stop using <DRUG>? ❒ (1) Yes ❒ (0) No IF YES, During the past 90 days, did you actually ever cut down or stop using <DRUG> altogether? (How many times did you try to cut down or stop altogether?) ❒ (1) Yes ❒ (0) No IF NO, Did you have a desire to cut down? ❒ (1) Yes ❒ (0) No IF YES, Is this something you kept worrying about? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(2) Persistent desire or one or more unsuccessful attempt to cut down or control substance use.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

3. During the past 90 days did you spend a lot of time using <DRUG> or doing whatever you had to do to get it? ❒ (1) Yes ❒ (0) No Did it take you a long time to get back to normal or recover from its effects? (Did you spend a lot of time being hung over? How much time? As long as several hours?) ❒ (1) Yes ❒ (0) No	Past 90 days: 3 2 1 ?	*(3) A great deal of time spent in activities necessary to get the substance, spent focused on taking the substance or recovering from its effects.*
4. During the past 90 days did you use <DRUG> so often that you used it instead of working or spending time at hobbies or with your family or friends? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(4) Important social, occupational, or recreational activities given up or reduced because of substance use.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD

5. Has <DRUG> ever caused you psychological problems, such as causing you to blackout, making you depressed or anxious, decreasing your concentration or memory abilities? ❒ (1) Yes ❒ (0) No Has <DRUG> ever caused you physical problems or made a physical problem worse? ❒ (1) Yes ❒ (0) No IF YES TO EITHER ABOVE: Have you experienced these difficulties during the past 90 days? ❒ (1) Yes ❒ (0) No IF YES, Did you keep on using <DRUG> anyway? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(5) Continued substance use despite knowledge of having a persistent or recurrent psychological or physical problem that is likely to have been caused or exacerbated by the use of the substance (e.g., recurrent cocaine use despite recognition of cocaine related depression).*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ **SC** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

SCID Psychoactive SUD

6. Have you found that you currently (in the last 90 days) need to use a lot more <DRUG> in order to get high than you did when you first started using it regularly (3 or more time a week)? ❒ (1) Yes ❒ (0) No IF YES, How much more? IF NO, What about finding that when you use the same amount now (in the last 90 days), it has much less effect than when you started using regularly? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(6) Marked tolerance: need for markedly increased amounts of the substance (at least 50% increase) in order to achieve intoxication or desired effect with continued use of the same amount.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ **SC** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

SCID Psychoactive SUD

7. During the past 90 days have you had withdrawal symptoms, that is, felt sick when you cut down or stopped using? ❒ (1) Yes ❒ (0) No IF YES, What symptom(s) did you have? _____ _____ IF NO, After not using <DRUG> for a few hours or more have you often used it to keep yourself from getting sick (WITHDRAWAL SX)? ❒ (1) Yes ❒ (0) No	Code for past 90 days: 3 2 1 ?	*(7) Characteristic withdrawal symptoms as manifested by either of the following:* *(a) the characteristic withdrawal syndrome for the substance* *(b) the same or a closely related substance is taken to relieve or avoid withdrawal symptoms.*

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	— — — —
Date:	— — / — — / — —
❒ SC / ❒ 3 mo. / ❒ 6 mo.	

WARRIOR CHECK-UP

SCID Psychoactive SUD		
8. RECORD THE TOTAL NUMBER OF ITEMS (1-7) CODED "3" FROM THE DEPENDENCE SECTION FOR THE PAST 90 DAYS	Code dependence for the past 90 days: Total # "3's": ___	*If 2 or less dependence items (1-7) are coded "3," participant does not meet Drug Dependence criteria.* *If 3 or more items (1-7) are coded "3," participant meets Drug Dependence criteria.*

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

? = Not Sure 1 = Absent or False 2 = Subthreshold 3 = Threshold or True

PID #:	__ __ __ __
WARRIOR CHECK-UP	**Date:** __ __ / __ __ / __ __
SCID Psychotic and Associated Symptoms	❒ **Screening**

►►►*NOTE: Only complete if participant has not been excluded.*◄◄◄

THIS MODULE IS FOR CODING PSYCHOTIC AND ASSOCIATED SYMPTOMS THAT HAVE BEEN PRESENT DURING THE PAST 90 DAYS.

FOR ANY PSYCHOTIC AND ASSOCIATED SYMPTOMS THAT IS INITIALLY CODED "3," YOU MUST DETERMINE WHETHER THE SYMPTOM IS DUE TO A TRUE PSYCHIATRIC CONDITION OR WHETHER THE SYMPTOM IS CAUSED BY SUBSTANCE USE OR SOME TYPE OF PHYSICAL ILLNESS. (IF THE ITEM IS INITIALLY CODED "1" OR "2," CONTINUE TO THE NEXT ITEM.)

THE FOLLOWING QUESTIONS MAY BE HELPFUL IN DETERMINING IF THE SYMPTOM CODED "3" IS CAUSED BY SUBSTANCE USE OR PHYSICAL ILLNESS FOR EACH INDIVIDUAL ITEM:

- **When you were (psychotic symptom) were you taking any drugs or medicines?**
- **Were you drinking a lot?**
- **Were you physically ill?**

FOLLOWING THESE QUESTIONS, IN THE RULE OUT BOX, CODE "1" IF DUE TO SUBSTANCE USE OR PHYSICAL ILLNESS OR CODE "3" IF NOT DUE TO THESE FACTORS.
NOTE: YOU WILL HAVE 2 RATINGS IF THE PERSON REPORTS EXPERIENCING THE SYMPTOMS.

"Now, I need to ask a few questions about unusual experiences people sometimes have…"

SCREEN:

S1. **In the past 90 days, have there been any times when you heard things, saw things, or smelled things that other people didn't hear, see, or smell?** YES NO

S2. **Did you ever think that anyone was out to get you, plotting behind your back, or purposefully trying to make life difficult for you?** YES NO

IF YES to either question→ continue psychosis section of SCID

IF NO to both→ do NOT complete psychosis section

FULL SECTION:

Next, I will ask about some specific medical needs

Do you have a chronic medical problem that requires hospitalization?

____ (0) No
____ (1) Yes, (Explain problem)_____

Do you have a chronic psychiatric problem that requires medication?

____ (0) No
____ (1) Yes, (Explain problem/medication) _____

If yes, **Are you currently taking your medication as prescribed?**

____ (0) No
____ (1) Yes

Are you currently receiving any psychotherapy or counseling for a psychiatric problem?

____ (0) No
____ (1) Yes, (Explain) _____

Have you ever been hospitalized for a psychiatric problem?

____ (0) No
____ (1) Yes, (Explain) _____

During the past three months, have you had difficulty controlling aggressive or violent behavior?

____ (0) No
____ (1)Yes, (Explain) _____

"Now I am going to ask you more about those unusual experiences we touched on earlier."

DELUSIONS:

False personal belief(s) based on incorrect inference about external reality and firmly sustained in spite of what almost everyone else believes and in spite of what constitutes incontrovertible and obvious proof of evidence to the contrary.

Code overvalued ideas (unreasonable and sustained beliefs that are maintained with less than delusional intensity) as **"2."**

NOTE: A SINGLE DELUSION MAY BE CODED **"3"** ON MORE THAN ONE OF THE ITEMS:

(1) During the past 90 days did it seem that people were talking about you or taking special notice of you? (0) = No (1) = Yes **What about receiving special messages from the TV, radio, or from the way things were arranged around you?** *DESCRIBE*:	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(1) Delusions of reference (i.e., personal significance is falsely attributed to objects or events in the environment).*
(2) During the past 90 days did anyone go out of the way to give you a hard time or try to hurt you? (0) = No (1) = Yes *DESCRIBE*:	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(2) Persecutory delusions (i.e., the individual or his or her group is being attacked, harassed, cheated, persecuted, or conspired against).*

(3) During the past 90 days did you feel that you were especially important in some way, or that you had powers to do things that other people couldn't do? *DESCRIBE*: (0) = No (1) = Yes	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(3) Grandiose delusions (i.e., content involves exaggerated power knowledge or importance).*

(4) During the past 90 days did you ever feel that parts of your body had changed or stopped working? (What did the doctor say?) (0) = No (1) = Yes DESCRIBE:	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(4) Somatic delusions (i.e., content involves change or disturbance in body functioning).*

(5) During the past 90 days did you ever feel that you had committed a crime or done something terrible for which you should be punished? (0) = No (1) = Yes *DESCRIBE*:	*Code for past 90 days* **? 1 2 3** _____ *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(5) Other delusions (e.g., delusions of guilt, jealousy, nihilism, poverty).*
(6) During the past 90 days did you ever hear things that other people couldn't hear, such as noises, or the voices of people whispering or talking? (0) = No (1) = Yes **(Were you awake at the time?)** (0) = No (1) = Yes *DESCRIBE*:	*Code for past 90 days* **? 1 2 3** _____ *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	HALLUCINATIONS (PSYCHOTIC) *a sensory perception without external stimulation of the relevant sensory organ.* *(6) Auditory hallucinations when fully awake and heard either inside or outside of the head*

(7) During the past 90 days did you ever have visions or see things that other people couldn't see? (Were you awake at the time?) (0) = No (1) = Yes *DESCRIBE*:	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(7) Visual hallucinations* *Note: Distinguish from an illusion: a misperception of a real external stimulus.*

(8) What about strange sensations in your body or on your skin during the past 90 days? (0) = No (1) = Yes DESCRIBE:	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(8) Tactile hallucinations (e.g., electricity).*
(9) What about smelling or tasting things that other people couldn't smell or taste? (0) = No (1) = Yes *DESCRIBE*:	*Code for past 90 days* **? 1 2 3** *1* *3* *Due to physical illness or substance use* *Not due to physical illness or substance use*	*(9) Other hallucinations (e.g., gustatory, olfactory).*

*RECORD THE TOTAL NUMBER OF ITEMS (1-9) FROM PREVIOUS SECTION FOR PAST 90 DAYS THAT ARE CODED "**3**" (Not caused by substance use or physical illness).* *TOTAL #"3's" _____*	*1 3* *ABOVE, CODE* "3" *IF TOTAL # "3's" IS ONE OR MORE. CODE* "1" *IF TOTAL # "3's" IS ZERO.*	If middle column is coded **"3,"** exclude from study.

Data collection staff ID #:	__ __ __ __
Data entry staff ID#:	__ __ __ __
Data Verification staff ID#:	__ __ __ __

PID #:	— — — —
Date:	— — / — — / — —
❒ **BL** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

SBQ-5

"We are near the end, but first I need to ask some very direct questions about suicidal thoughts and actions."

INSTRUCTIONS: Please answer every item. Please put only ONE number per space. DO NOT leave any empty spaces. If you have any questions, please ask.

<<Note: For baseline interview, use past 60 days as the time frame.>>

1) Have you thought about or attempted to kill yourself since your last phone questionnaire (about 3 months ago)?		
0	No	
1	It was just a passing thought.	**Complete Safety Assessment**
2	I briefly considered it, but not seriously	
3	I thought about it and was somewhat serious.	
4	I had a plan for killing myself which I thought would work and seriously considered it.	
5	I attempted to kill myself, but I do not think I really meant to die.	
6	I attempted to kill myself, and I think I really hoped to die.	

2) How often have you thought about killing yourself since your last assessment?		
0	Never	
1	Rarely	**Complete Safety Assessment**
2	Sometimes	
3	Often	
4	Very Often	

3) Have you ever told someone that you were going to commit suicide, or that you might do it?		
0	No	
1	At one time, during a short period of time	**Complete Safety Assessment**
2	More than once, during more than one period of time	

4) How likely is it that you will attempt suicide someday?		
0	No chance at all	
1	Unlikely	**Complete Safety Assessment**
2	Some Chance	
3	Likely	
4	Very Likely	

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

PID #:	— — — —
Date:	— — / — — / — —
❒ **SC** / ❒ **3 mo.** / ❒ **6 mo.**	

WARRIOR CHECK-UP

Treatment Seeking Preparation Behaviors Questionnaire; Treatment Utilization

These questions are about your use of resources in your community.
<<If a screening interview, ask about the past 90 days. Use anchor date from the SCID.>>

A) Are you currently seeing a counselor or therapist for any reason? ❒ **Yes** ❒ **No**

B) <<If Yes>> What is the primary concern for which you are seeing the therapist?

_____

_____

C) <<If No>> Have you seen a counselor or therapist in the past 90 days? ❒ **Yes** ❒ **No**

D) <<If Yes>> What is the primary concern for which you saw the therapist?

_____

_____

With regard to *alcohol or other drug treatment resources,* since your last interview (or past 90 days) have you:

		Yes	**No**
1.	Attended at least one session of treatment	1	0
2.	Attended an intake interview or session	1	0
3.	Applied for acceptance in a treatment program	1	0
4.	Went to an agency to inquire	1	0
5.	Called an agency for an appointment	1	0
6.	Contacted an agency for further information	1	0
7.	Attended a 12-step meeting (e.g., AA, NA)	1	0
7A.	Met with a religious or spiritual leader (chaplain, priest, preacher, rabbi, imam, etc.) to discuss substance use concerns	1	0
8.	Withdrawn from treatment	1	0

<<If yes to question 1 or 2, continue questionnaire >>

9. What type of treatment?

		Yes	No
a.	On-post treatment	1	0
b.	Detox	1	0
c.	Inpatient	1	0
d.	Intensive outpatient	1	0
e.	Outpatient	1	0

10) Is the participant currently enrolled in treatment? ❒ **Yes** ❒ **No**

11) <<If yes to question 10>> What date did you enroll in treatment? _____

12) Have you ever completed treatment? ❒ **Yes** ❒ **No**

13) <<If yes to question 12>> what were the dates of the treatment episode:

_____to _____

Data collection staff ID #:	— — — —
Data entry staff ID#:	— — — —
Data verification staff ID#:	— — — —

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ORIGINAL ARTICLE

Reaching Soldiers with Untreated Substance Use Disorder: Lessons Learned in the Development of a Marketing Campaign for the Warrior Check-Up Study

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The Warrior Check-Up, a telephone-delivered intervention, is designed to reach active-duty soldiers with untreated substance-use disorder at a large US military base. This paper describes the development and successful implementation of the study's marketing strategies at the recruitment period's midpoint (2010–2012). Qualitative analyses of focus groups ($n = 26$) and survey responses ($n = 278$) describe the process of campaign design. Measures of demographics, media exposure, post-traumatic stress, anxiety and depression gathered from callers ($n = 172$) are used in quantitative analysis assessing the campaign's success in reaching this population. Implications, limitations, and suggestions for future research are discussed. Department of Defense provided study funding.

Keywords recruitment, marketing, motivational enhancement therapy, army, military, treatment engagement, check-up, stigma, substance use disorder, alcohol use disorder

INTRODUCTION

The United States Military faces public health challenges in addressing substance use disorders among active-duty personnel (Institute of Medicine, 2012). Over the past decade of ongoing wars, stressors, including multiple deployments, have taken a psychological toll on service members. At the same time, rates of substance use disorder have climbed, causing additional burdens to service members, their families and the military at large (Bray et al., 2009). Despite increased substance use in the Army, few soldiers are engaging in treatment (the terms "soldier" and "Army personnel" will both be used to denote individuals of any rank with active-duty status in the US Army). The Warrior Check-Up (WCU) is a brief intervention to promote behavior change among soldiers not engaged in substance abuse treatment. This paper describes the development and successful implementation of a marketing campaign designed to engage this difficult to reach population.

With 20% of military personnel binge drinking on a weekly basis and 12% reporting use of illicit substances in the past month, the Institute of Medicine (2012) recently issued a major report that declared substance use in the military to be a public health crisis (Bray et al., 2009; IOM, 2012). On one Army base, 36% of soldiers were identified as engaging in hazardous or harmful alcohol use as measured by the Alcohol Use Disorder Identification Test (Mattiko, Olmsted, Brown & Bray, 2011). These rates have risen with the increase in combat deployments over the past decade. Calls have been made for structural and cultural changes in the military to manage the problem (Bray et al., 2009; IOM, 2012; Jacobson et al., 2008; Lande et al., 2008; Santiago et al., 2010).

Substance misuse has serious consequences for the military. Lost worker productivity, the most commonly endorsed consequence of alcohol misuse across all military branches, is reported by 32% of heavy drinkers (Bray, 2009; Williams, Bell, & Amoroso, 2002). Further, substance misuse increases burden on medical and installation commands, as it is linked to increased medical disease burden, mental healthcare utilization, legal problems, driving under the influence, and perpetration of domestic violence (Bray, 2009; Foran, 2012; Possemato, Wade, Andersen, & Ouimette, 2010).

Despite the prevalence and impact of problematic substance use, few receive treatment. Of 43,342 soldiers

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screened for alcohol abuse postdeployment in 2008, nearly half ($n = 19{,}744$) were found to be at risk for alcohol abuse, yet only 215 (1%) were referred to the Army Substance Abuse Program (ASAP) (Clinton-Sherrod, Barrick & Gibbs, 2011). Moreover, rates of self-referral for alcohol use disorder treatment are low (IOM, 2012; US Army, 2009).

In the military, the barriers to substance use disorder treatment are formidable. Key aspects of military culture and hierarchy, as well as actual or perceived adverse consequences forfi tness for duty status, promotion, command assignment, and security clearance, converge to dissuade active duty personnel in need of behavioral health services from requesting help (Britt, 2000; Castro, 2006). Stigma and negative beliefs about treatment are common. Seeking assistance for a substance use disorder is commonly seen as a sign of personal weakness demonstrating an inability to handle stressors faced by one's fellow soldiers (Gibbs, Olmsted, Brown, & Clinton-Sherrod, 2011). Fear that disciplinary action will be taken against someone who seeks treatment add to these barriers (Hoge et al., 2004; Vogt, 2011; Zinzow et al., 2012).

In addition to negative beliefs about treatment, practical barriers also exist. Because ASAP is not and occurs during regular work hours, those contem-plating requesting treatment may be apprehensive of the consequences of their commanders being notified and of their fellow unit members possibly believing they are attempting to shirk their duties by self-referring to treatment. Social isolation may exacerbate the experience of stigma when a soldier stops drinking and is thus excluded from one of the most common forms of bonding among Army peers (Gibbs, Olmsted, Brown, & Clinton-Sherrod, 2011).

treatment options, currently being tested in the Army, show promise for reducing barriers related to career damage and stigma. When it has been offered, treatment has increased self-referral (Gibbs & Olmsted, 2011). These findings make a compelling case for designing and evaluating innovative approaches to promote motivation for change, voluntary treatment en-try, and completion (IOM, 2012).

The Present Study

The WCU is a study comparing a motivational enhancement intervention and a psychoeducational intervention both being evaluated in a trial funded by the Department of Defense (DoD). Brief, delivered by telephone, and offering the option of anonymous participation, the WCU is designed to reach soldiers who have concerns about their use of alcohol or drugs, but are not enrolled in treatment. The study has two main goals. Thefi rst is to develop a marketing campaign that reaches and resonates with members of this population. This will be measured by the number of untreated soldiers who call the publicized phone number, taking thefi rst step toward help-seeking for their substance use. The longer-term goal is to complete a randomized clinical trial evaluating the interventions described above and adapted for soldiers with untreated substance use disorders.

This paper will focus on the development and evaluation of an outreach campaign. This goal was completed in two phases. In thefi rst, focus group discussions and open-ended survey responses were analyzed to provide qualitative guidelines for creating an effective marketing plan. During the second phase, these guidelines were used to develop, implement, and evaluate the campaign. Explanation of methods andfi ndings for both phases will be followed by discussion.

A "check-up" approach is a specific variant of motivational enhancement therapy (MET) originally developed to reach and attract voluntary participation from untreated heavy drinkers (Miller & Sovereign, 1989). The "check-up" approach is framed as a no-pressure opportunity to take stock of one's experiences and think through one's options. As such, marketing is an integral part of the intervention and has been successfully applied as a means for attracting people struggling with, but ambivalent about changing, high risk behavior, e.g., adults and teens with marijuana use disorders (Stephens, Roffman, Fearer, Williams, Picciano, & Burke, 2004; Walker et al., 2011), gay and bisexual men engaging in risky sexual behavior (Picciano, Roffman, Kalichman & Walker, 2007), and male domestic violence perpetrators (Mbilinyi et al., 2008). The WCU is an adaptation of the MET "check-up" model and is being tested as a means of engaging active-duty Army personnel stationed at Joint Base Lewis-McChord in the state of Washington.

PHASE 1: CAMPAIGN DEVELOPMENT

Thefi rst year of the trial was devoted to designing recruitment products to reach the target population. During that time, and continuing throughout the trial, staff employed by the Army Substance Abuse Program (ASAP) at the base were highly instrumental in training the researchers about military culture, helping to ensure that the project's marketing strategies were relevant and appropriate. Together, the researchers and ASAP staff members brainstormed a wide variety of potential marketing components, e.g., project names, logo designs, images, and messages. Subsequently, the members of three focus groups reviewed draft iterations of the project's marketing products. Finally, once recruitment had begun, additional feedback was sought by surveying members of the Army community attending a large on-base event.

Concepts and theory from thefi eld of social marketing guided this developmental process. Social marketing uses communication strategies to increase knowledge or awareness, change thoughts, and/or stimulate behavior change (Kotler & Roberto, 1989). McGuire's (1985) communication and persuasion matrix offers a useful conceptual framework to develop marketing strategies, particularly those inclusive of a "call to action" such as prompting Army personnel concerned about or questioning their substance use to take afi rst step toward change.

McGuire's matrix incorporates inputs, consisting of five communication components, and outputs, i.e., the desired outcomes. Thefi ve communication components include: (1) *receiver*, the intended recipient of the message, with characteristics such as gender, age, race, rank; (2) *message*, the content being communicated (e.g., focusing on the negative impact of substance abuse, highlighting benefits of changing the negative behavior, and/or relief of talking to someone who understands); (3) *channel*, the means or strategies used to deliver the message to the receiver (e.g., advertisements, briefings, flyers); (4) *source,* the institution or person sending the message; and (5) *target*, the anticipated outcome (i.e., what action the receiver should be prompted to take).

Use of the matrix gave rise to a number of recruitment-related questions. Who are we trying to reach? What thoughts go through the mind of a soldier concerned about his/her alcohol, drug, or prescription medication use? What hopes and fears do soldiers have about reaching out for help? What message will likely resonate with this soldier and prompt a response to an ad? What variations in marketing will be needed to recruit an inclusive sample with reference to gender, age, race, and rank? What words and images will likely be counterproductive? What means of message delivery will be most likely to reach these soldiers? Where are the best locations to place these messages?

Phase 1 Methods

The University of Washington's institutional review board and the Army Human Research Protections Office approved both the clinical trial and the recruitment campaign development and evaluation process.

Focus Groups

Three separate focus groups were conducted: Army personnel who were current alcohol or drug users but not engaged in treatment ("nontreatment seeking"; $n = 10$), Army personnel who had completed or were currently enrolled in substance abuse treatment ("treatment-engaged"; $n = 7$), and Joint Base Lewis-McChord substance abuse and behavioral health service providers ("providers"; $n = 9$).

Participants were recruited through newspaper advertisements,fl yers, and word of mouth from collaborators at ASAP. Advertisements made clear that participants would not be asked personal questions about their own use of substances and that personnel of all ranks, genders, and racial and ethnic backgrounds were encouraged to call.

Applicants were screened and selected to enhance diversity in terms of race/ethnicity, age, gender, and military rank, when possible. Of those invited, several were unable to attend due to scheduling conflicts. Only one female screened for the two focus groups of soldiers, but she was unable to attend. Consequently, the nontreatment-seeking and treatment-engaged groups were entirely male, whereas the provider group was split withfi ve males and four females. The provider group also showed the most diversity of age with participants ranging from 24 to 60 years old. Both soldier groups included a participant in his forties, while the others ranged in age from 22 to 33. Of the 46 individuals who screened, only 5 identified as Hispanic, 2 of whom participated in the nontreatment-seeking focus group. The provider group was 88% and both soldier groups where approximately 60% Caucasian, which matched the racial distribution of the screening sample. Lastly, the majority of those screened for participation in the nontreatment-seeking group were higher ranking enlisted soldiers (E6 and above). One Private (E1) participated in the treatment-engaged group and the remaining soldiers ranged in rank from Specialist (E4) to Staff Sergeant (E6).

Each focus group lasted two hours and was held on base at an Army housing community center, outside of regular work hours. Focus group participants were compensated $75 for their time if they were participating in off-duty hours.

After introductions of UW staff, an orientation to the focus group, and review and signing of consent forms, drafts of six mock advertisements were provided to the participants. This original set of ads consisted of basic adaptations of marketing materials from the research team's prior "check-up" studies with other populations.

Participants were first directed to look at each advertisement and record initial reactions individually without group discussion. Each ad was then discussed with the group as a whole. The focus groups ended with discussion centered on where and how the program should be promoted. Group facilitators guided the discussion to cover each of McGuire's (1985) communication components: receiver (target population), message (content and appeal), source (institution conducting the study), target behavior (suggested action for the receiver), and channel (medium for relaying the message to the receiver).

Survey

After recruitment had begun, project staff sought additional input from soldiers stationed at the base. The study team set up a booth at a large on-base event that all soldiers were required to attend. Large signs were posted advertising a raffle to win a $150 gift certificate to a large local sporting and outdoors retailer. Those who entered the raffle were invited to answer a brief anonymous pen and paper survey. The primary purpose of this informal pilot test was to gain direct reactions to ads as well as suggestions for marketing channels from a convenience sample of Army community members. Respondents were asked to look at four project ads and then answer several free response questions: (1) Which ad do you think would get soldiers concerned about their drinking or drug use interested in the study? Why? (2) Where do you suggest we advertise on base and in the community? (3) Besides these ads, what ideas do you have for getting the word out about this project?

Data were collected from 279 respondents during the one-day event. Privacy concerns and the fast-paced, high volume collection period prohibited the gathering of demographic data. However, only soldiers, Army spouses

and service providers working on base were allowed to attend the event, so it is understood that all respondents were members of the Army community and hadfirst-hand knowledge of the base and its culture.

Analysis

Guided by McGuire's framework, rudimentary qualitative analysis was used to first categorize data from focus group sessions and survey responses into categories pertaining to receiver, message, source, and channel. Coded quotations were then grouped to identify the emerging concepts or recommendations within each category of McGuire's framework. Differences in data between groups were noted to highlight the codes or concepts that were most salient to specific groups. Lastly, channels suggested by survey respondents were coded into groups that were simply tallied tofi nd the most frequently suggested recruitment avenues and locations for print media placement.

Phase 1 Findings

Again using McGuire's framework, data obtained from focus group sessions, and community members' survey responses were categorized as pertaining to receiver, message, source, and channel. Qualitative review of responses did not reflect systematic differences between groups.

Receiver

Concern about stigma among members of the target population was the most salient issue to emerge from all focus groups. Multiple members of each group (25%; $n = 7$) suggested including assurances of and not-ing that the WCU offered a "nonjudgmental" experience. "Tell [them] they can get help without someone breath-ing down their neck," a member of the treatment-engaged group suggested.

Other than the unifying concern over stigma and participants stressed that soldiers face a wide variety of unique stressors. A number of the draft ads presented to the focus groups featured discussion of deployment-related stress (e.g., "*The memories of war seem a lot to bear on my own*. If this sounds familiar, sometimes it helps to talk. . . "). Members urged the re-searchers to not focus only on soldiers who had been deployed. As one member currently in treatment com-mented, "It's not only deployments. You drink because of stress, relationships, and being away from family and friends." Indeed, many of the soldiers who subsequently enrolled in the project had not been deployed, but nonetheless faced significant stressors and struggled with anxiety, depression, isolation, post-traumatic stress disorder (PTSD) symptoms, and concern about stigma.

Message

Following McGuire's Communication Matrix, before developing a message it is necessary to consider the outcome that the message is intended to elicit. In this case, that outcome is a behavior, i.e., calling the study's toll-free number to learn more about the project. Getting to that behavior, however, is likely tofi rst require that the receiver who recognizes the existence of a problem, but is ambivalent about making change, perceives the "check-up" as both safe and desirable. An initial call to a substance use service provider of any sort is a major step. Therefore, the "check-up" message must help the ambivalent viewer perceive that there will be personal value from making that call.

With this in mind, four elements of a message emerged from discussions with focus group members and survey respondents. The message must: (1) connect with the viewer and spark self-reflection, (2) convey hope for change, (3) lower the threshold for seeking help, and (4) offer assurance of the program's legitimacy.

Connect with the viewer and spark self-reflection. Seven soldiers and one provider emphasized that messages need to convey respect for the receiver and honor his/her service. Perceiving too much emphasis on pathology in one draft ad, one focus group soldier stated discouragingly, "They think I'm broke." A treatment-engaged soldier wrote that an ad which mentioned drinking as a way to "numb memories of war" would be "discriminating to soldiers if used off-post," i.e., reinforce a negative stereotype. Another soldier currently in treatment said that he would like an ad that "leaves a person feeling that they are a good soldier even though they may need help."

Several soldiers stressed the importance of including an image of a soldier in uniform with a combat patch, a symbol of having been deployed (Figure 1). However, a concern among service providers was that images of soldiers in combat and/or carrying a rifle in a war zone would be too invasive because they could trigger a negative reaction or memory. One provider specifically suggested "the memories of war line" should be deleted. A number of participants, primarily from the treatment-engaged group believed ads which directly discussed deployment and emotional numbing from combat confused the study's focus. "Is this [for] alcohol or PTSD or both – not sure," was one soldier's response to early advertisements. At the same time, members of each focus group and a number of survey respondents agreed that showing a uniformed soldier was a good way to immediately connect with the target audience.

Some of the input favored ads that reference specific substances, e.g., alcohol or prescription medication. The soldiers' groups suggested ad content asking viewers to consider how alcohol affects work responsibilities, loved ones, and life goals as a means to connect and spark self-reflection.

In terms of advertisement design, simplicity, visual appeal, and a concise and clear message were emphasized. Ads with unique or provocative imagery were favored. The most highly rated ad presented to survey respondents was one depicting a young man trapped in a bottle of beer (Figure 2). Second was an ad showing a bottle of pills caught on afi sh-hook and asking, "Worried you might get hooked?" (Figure 3). Community members made positive survey comments about an ad depicting a young female soldier and another with a young man in civilian clothes, however, the most popular ad received over three times

FIGURE 1. "Signature Ad," adapted from an earlier ad to feature a combat patch.

FIGURE 2. "Bottle Ad," most-preferred by survey respondents.

FIGURE 3. "Hooked Ad," targets concerns about prescription misuse.

the number of votes as these two more conventional images combined. Many preferred the top two ads because they were either "funny," "eye-catching," or "creative." These ads attracted the viewer, and their unique imagery prompted more thought than the other ads.

Convey hope for change. Strong criticism came from focus group members, five from the treatment-engaged group and one from both of the other groups, who believed a draft ad did not offer hope for change or improvement. A number were concerned about ads mentioning that the WCU was a study. One soldier asked, "Will I be helped, or studied and made a stat?" Another concern related to the prospect for real change. Would WCU participants see an ad and believe they would just be talking about their problems? One soldier who was receiving treatment said of a specific ad, "I like how it refers to other substances. It means hope for things besides just alcohol." Another soldier urged "Don't be depressing," suggesting the need for a positive message.

Further support for providing a message of hope may be extrapolated from survey respondents' overwhelming preference for an ad which asked, "Looking for a way out [of the bottle]?" (Figure 2). This was the only ad to reference a path to recovery rather than consequences or ambivalence.

Lower the threshold for seeking help. A final and critically important element of a social marketing campaign to encourage help-seeking is to lower the threshold for services. As reported previously, focus group participants encouraged including and "nonjudg-mental" in ad text. This feedback reiterated the concern held by active-duty personnel about potentially negative career consequences if they engage with Army social ser-vices. Additionally, stating clearly in ads that participation is "all by phone," was seen as lowering the threshold for engagement.

Source

Perspectives for conveying the fourth important part of an effective recruitment message, a sense of the program's legitimacy, falls under what McGuire describes as the Source component. To comply with Institutional Review Board requirements, each ad identified the project as a study being conducted by the University of Washington. Fortunately, focus group participants saw the university's role as giving the project credibility and reinforcing the assurance that military Command is not involved.

The draft ads seen by focus groups and survey respondents also included the phrase "funded by the DoD," which was a required part of informed consent but not advertisements. Later feedback from survey respondents conveyed concern about this phrase as it relates to ty. If the DoD funded the study, would the Army have access to identifiable information about participants? Soldiers in the focus groups did not raise this concern. On the other hand, on-base service providers and

TABLE 1. Survey respondents' suggested marketing channels

	N	%
AAFES locations (PX, shopettes, commissary, class 6, etc.)	192	29.2%
Paid commercial media placement (TV, billboards, fences on post)	100	15.2%
Briefings (readiness/reintegration)	64	9.7%
Gyms & rec centers	37	5.6%
Unit/company/brigade areas and barracks	55	8.4%
Facebook/internet	29	4.4%
MWR facilities and events (other than gym)	28	4.3%
Word of mouth (family, friends, commanders)	26	4.0%
Welcome and processing center	21	3.2%
Medical facilities (clinics, hospital, pharmacies, etc.)	18	2.7%
On-post service agencies (ASAP, ACS, ACAP, BOSS, FRG's, etc.)	17	2.6%
Other (restrooms, banks, DFACs, etc.)	70	10.7%
Total	657	100%

Note. 297 respondents provided 657 suggestions.

commanders communicated to the researchers that noting the DoD funding source on posters provided the legitimacy needed to justify displaying marketing materials at various locations under their control. It gave the study official, military-approved status.

Channel

The 279 survey respondents offered 657 suggestions regarding marketing channels. As seen in Table 1, the most commonly suggested channel identified by the base's community was AAFES (Army and Air Force Exchange Services) locations on base such as the Post Exchange and other retailers. AAFES was followed by paid media placement such as television commercials and billboards. Briefings were the third most endorsed channel. The "other" category encompassed a wide range of suggestions such as bars/clubs, restrooms, dining facilities, on-base circulars, and libraries. Identifying specific marketing locations or channels was not a primary topic in the focus groups.

PHASE 2: CAMPAIGN IMPLEMENTATION AND EVALUATION

In the next phase of the project, study staff revised ads, created new ones, and pursued marketing channels according to the guidelines established in thefi rst phase. Then, after nearly 2 years of implementation, an evaluation of the campaign described who it reached in terms of demographics and clinical symptom severity, as well as channel effectiveness. Evaluation methods andfindings will follow a discussion of the implementation process.

While project ads portray soldiers wearing uniforms with combat patches, the staff learned to be wary of making any assumptions about the experience of being in a war. A statement familiar to those who have worked with soldiers is that "no one can understand what war is like who has not been through it." This points to the necessity of deference to service in combat without presumption of its personal meaning.

Language in early advertisements that had asked rhetorical questions about problems related to combat exposure was dropped entirely. Instead, subsequent ads directed rhetorical questions at soldiers' ambivalence about confronting problematic substance use ("Wonder if you might drink or use too much?" "Questions about your use of alcohol or drugs?"), and potential negative consequences of use ("Alcohol or drugs slowing you down?" "Alcohol or drugs holding you back?") The intention was to elicit the viewer's thoughts specifically about substance use behavior rather than past combat experiences.

Responding to feedback about simplicity, later ad materials greatly reduced the number of words per ad from over 70 in the first round to less than 40 in later versions. A more concise message had a greater likelihood of reaching the intended audience. But, because the project's messages were more extensive than any one ad could convey, multiple versions of ads were developed. With ample ad placement of multiple versions, viewers were exposed to all of the project's messages but in smaller, more easily digested doses. Additionally, a webpage was created that includes all project ads for those seeking more information prior to picking up the phone.

Lastly, survey respondents' strong preference for ads depicting a young man trapped in a beer bottle and pills caught on a hook suggested that somewhat provocative images had more impact. It was hoped that illustrating a problem in a novel way had a better chance of bypassing one's usual defenses and striking a chord of self-reflection, so these ads were used prominently in the campaign.

Though discussing a serious subject, project staff learned from WCU participants that it was important to keep the tone of ads from becoming dour. This project sought participants who were ambivalent about change and likely not fully perceiving the darker side of their use. One who is ambivalent about change – seeing both positive and negative consequences of use – would likely be put off by too grim of a message. Later ads conveyed messages that recognize the viewer's potential for a life with fewer negative substance-use related problems.

To avoid concerns of a time burden or judgmental attitudes, the WCU was described in ads as a brief and nonjudgmental opportunity to take stock of one's behaviors and explore options. A tagline ("Take stock and explore your options") was added to emphasize a no pressure conversation in lieu of committing to behavior change. The term "check-up" in the project name was intended to differentiate this conversation from substance abuse treatment. The program's logo contains an image of a telephone and the ads included the phrase "all by phone." These additions underscore a minimal time burden associated with participating and offer another level of protection against disclosure of problems, potential career damage, and social stigma.

TABLE 2. Response and completion rates by recruitment channel

	Total	Print and visual	Briefings	Family and friend	Providers and military leaders	Test (p value)
All screened callers (n)	262	164	48	21	27	
Eligible (n) % of all callers	172 66%	110 42%	29 11%	14 5%	19 7%	$\chi^2 = .98$
Enrolled (n) % of eligible	136 79%	91 53%	21 12%	9 5%	15 9%	$\chi^2 = 4.61$
Completed (n)* % of eligible	106 78%	73 53%	15 11%	7 5%	11 8%	$\chi^2 = .98$

Note. Callers with unknown channel not included ($n = 19$).
*Participants who completed the intervention session.

All recruitment materials stated that the program is free and participants would be compensated for their time. At the initial screening call, the interviewer explained to participants that they would be compensated for completing interviews over a seven month period but would not receive payment for their conversation with the counselor. For active-duty Army personnel, one of the only ways to get behavioral health services is to go to a civilian provider and pay out-of-pocket. Consequently, soldiers who are exploring their options may associate non-military services with high fees, so it was important to be clear about the no-cost aspect of the WCU.

All suggested channels for marketing were pursued and can be grouped into three main categories: (1) print and visual media (2) presentations at soldier briefings, and (3) outreach to military leaders, service providers, and military families.

Print and Visual Media

Study staff contacted the directors or facility managers of all recommended locations to seek permission to display printed recruitment materials. Materials included brochures, half-pagefl yers, stacks of business-card sized ads, larger wall posters, and acrylic stands. All materials were printed with a variety of designs.

Unfortunately, AAFES facilities, the most recommended channel for media placement, was the only on-base entity that prohibits any form of recruitment marketing, stating their mission is strictly to provide commerce. Study staff eventually gained direct access to all locations recommended for print ad placement, except for company areas and barracks where non-military civilians are prohibited. Fortunately, the staff gained indirect access to these areas having developed a strong relationship with an on-base champion of the study, an upper-level ASAP employee who worked within the system to access these locations. Part of her job included giving presentations at each unit, and she was able to talk with unit commanders about the WCU at those times and gain permission to post materials. She also gave trainings to Unit Prevention Leaders and had them take materials back to barracks and Company offices.

Paid commercial ad placement, the third most recommended channel, included ads in local periodicals, on-base billboards or banners, and on Facebook. Ads ranged in size from an eighth of a page to a half page in circulars distributed solely on the base, as well as civilian publications with a large military audience. Advertising space was also purchased for a billboard near the base's entry gate. A website was created with a home page featuring the project's standard ad images and language, links to a fuller project description, frequently asked questions, and contact information. Facebook ads that linked to this website were also attempted.

Briefings

ASAP collaborators were integral to implementing the third most suggested recruitment channel, soldier briefings. Several obstacles, e.g., unpredictable scheduling, travel limitations due to distance between study offices and base, and rules regarding nonmilitary access to briefings limited project staff's ability to present at briefings. Fortunately, the strong relationship negotiated with ASAP provided proxy. ASAP prevention leaders were trained to present the study, provided PowerPoint slides for inclusion in their presentations, and given access to materials for distribution. Collaborators included the WCU in Reintegration Briefings for soldiers returning from deployment, substance use education and prevention presentations to units, and Newcomer Orientations for service members newly stationed at the base.

Outreach to Leaders, Providers, and Families

The majority of channel recommendations pertained to visual media placement. However, WCU staff and on-base collaborators believed it was also important to reach out to military leaders, on-base social service providers and military families. Staff met with directors from multiple departments, including Social Work; Chaplain Corps; Child, Youth & School Services; Army Community Services; Suicide Prevention; Military and Family Life Counselor Program; Better Opportunities for Single Soldiers (BOSS); and Non-Commissioned Officer Academy and the Warrior Transition Battalion. Program information and recruitment materials were given to the program leaders for distribution.

When meeting leaders and making presentations, staff provided print materials and guided their explanations with talking points that mirrored print advertisements in order to maintain a cohesive message across channels. Presentations emphasized and the study's low-pressure, noncoercive approach. Individuals were encouraged to recommend the study and distribute project

TABLE 3. Channel effectiveness by participant characteristics, eligible participants ($n = 172$)[1]

	Print and visual ($n = 110$)	Briefings ($n = 29$)	Family and friends ($n = 14$)	Providers and military leaders ($n = 19$)	Test (p value)	Total
Gender (n, % male)	99 (90%)	28 (96%)	11 (79%)	18 (95%)	$\chi^2 = 4.14$ (.25)	156 (91%)
Age (mean, SD)[3]	28.7 (6.66)^b	25.3 (3.75)^{ab}	23.4 (2.71)^a	26.5 (7.64)^{ab}	F (3, 171) = 4.76 (.003)	28 (6.51)
Ethnicity (n, % white)	61 (55%)	17 (59%)	9 (64%)	9 (47%)	$\chi^2 = 7.53$ (.28)	96 (56%)
Marital status (n, % married)	55 (50%)	14 (48%)	7 (50%)	6 (32%)	$\chi^2 = 7.58$ (.27)	82 (48%)
Rank / pay grade		18 (64%)	11 (79%)	12 (63%)	$\chi^2 = 5.10$ (.53)	98 (57%)
E1–E4	57 (52%)	9 (32%)	2 (14%)	6 (32%)		61 (36%)
E5–E9	44 (40%)	1 (4%)	1 (7%)	1 (5%)		12 (7%)
Officer	9 (7%)					
Deployment (n, % deployed)	89 (81%)	25 (86%)	11 (79%)	16 (84%)	$\chi^2 = .61$ (.89)	141 (82%)
Combat (n, % exposed)	82 (75%)	19 (66%)	10 (77%)	15 (79%)	$\chi^2 = 1.38$ (.71)	126 (73%)
Alcohol use disorders						
Abuse	13 (12%)	7 (24%)	0 (0%)	2 (11%)	$\chi^2 = 6.81$ (.34)	22 (13%)
Dependence	87 (80%)	21 (72%)	12 (86%)	16 (84%)		136 (79%)
Substance use disorders						
Abuse	4 (4%)	0 (0%)	0 (0%)	0 (0%)	$\chi^2 = 2.98$ (.81)	4 (2%)
Dependence	27 (25%)	8 (28%)	5 (36%)	5 (26%)		45 (26%)
PTSD symptom severity (mean, SD)[2]	45.87 (17.63)	45.42 (16.85)	52.61 (14.25)	47.02 (17.04)	F (2, 127) = 1.52 (.22)	47 (17.04)
Generalized anxiety disorder (mean, SD)[2,3]	9.28 (5.78)^{ab}	9.04 (4.94)^a	12.83 (6.55)^b	9.87 (5.93)^{ab}	F (2, 134) = 3.80 (.03)	9.9 (5.93)
Depression (mean, SD)[2]	10.23 (6.30)	11.29 (5.05)	13.30 (6.48)	10.93 (6.22)	F (2, 133) = 2.32 (.10)	10.9 (6.22)

[1]Callers with unknown channel not included ($n = 19$).
[2]Measure administered only for enrolled participants ($n = 136$); summed severity score (PCL-S; GAD-7; PHQ-9).
[3]$p < .05$. Means and proportions with different superscripts (a or b) are significantly different from one another.

Appendix A

marketing materials to any soldier who disclosed concerns or asked questions about their substance use or treatment options.

Phase 2 Methods

Two years into the 3-year recruitment period, preliminary analyses were performed to evaluate the marketing campaign's reach. All callers answered a marketing exposure questionnaire that asked where they heard about or saw advertisements for the study. At screening, participants completed a demographic questionnaire (gender, age, race, ethnicity, rank/paygrade, deployment history, combat exposure, etc.), and the Structured Clinical Interview for DSM Disorders – Substance Use Disorder section (Kranzler, Kadden, Babor, Tennen & Rounsville, 1996). In addition to baseline measures of substance use behaviors, histories, beliefs, and motivators not analyzed here, participants completed the PTSD Checklist (PCL-S), a 17-item measure of PTSD symptom severity; the GAD-7, a seven-question scale of generalized anxiety disorder; and the PHQ-9 measuring depression severity (Keen, Kutter, Niles & Krinsley, 2008; Kroenke, Spitzer & Williams, 2001; Spitzer, Kroenke, Williams & Lowe, 2006). These measures were summed to create a total severity score.

The following analyses concerning the demographics of those reached by various marketing channels are based on enrolled participants who completed a screening assessment during thefi rst 93 weeks of recruitment ($n = 262$). Analyses of participants' psychological health (anxiety, depression, and PTSD) and intervention completion rates are based on enrolled participants, those who were eligible at screening and then completed the baseline assessment, by week 93 ($n = 136$).

Data analyses were completed using one-way ANOVAs for continuous measures and chi-square tests for categorical measures. In the event of an overall significantfi nding, post hoc tests were completed using the least square differences algorithm to test for pair-wise differences among continuous variables, and 2×2 chi-square tests were used to measure pair-wise differences among categorical variables. The significance level was set at .05. Participants with unknown channels were not included in the analyses ($n = 19$).

Phase 2 Findings

Response Rates

Over thefi rst 93 weeks of recruitment, 459 individuals responded to the marketing campaign and called to inquire. Of those callers, 262 were interested in enrolling and completed the initial 15-minute screening. One-hundred and 72 callers met eligibility criteria for inclusion in the randomized trial of MET.

Participants responded to one or more of four main recruitment channels utilized by the study. Print and visual media generated 63% of all screened callers. Eight percent of callers who completed the initial screening came to the study via personal referrals (spouse, friend, or fellow soldier), 18% called in response to military briefings, and the remaining 10% were referred through service providers or military leaders. Advertising through paid media (newspapers, circulars, billboards, and Facebook) was not generally successful in recruiting participants as less than 2% of all calls identified these as referral sources. In contrast, flyers and posters accounted for 56% of all referrals, with company areas (16%), gyms (23%), and the welcome center (19%) being the most common sites for responding to flyers. Reintegration briefings (13%) were also successful in generating referrals. While there was some variation in the percentage of overall callers elicited by the different channels who were eligible for the project (ranging from 60% of those responding to briefings to 70% of those referred by service providers or military leaders), this response rate did not differ statistically across channels (see Table 2).

Overall, 136 callers completed the initial baseline assessment and were enrolled in the study, representing 49% of all callers who completed screening and 79% of callers who were eligible at screening. Seventy-eight percent of the participants who completed baseline also completed treatment, which is 38% of screened callers. Although there was variation across channels, there were no significant differences in initial study enrollment (60% from briefings to 70% from service providers and military leaders), completion of our baseline assessment (64% from family and friends to 84% from advertisements and flyers), or treatment completion (71% from briefings to 80% from advertisements andfl yers) based on channel of recruitment.

Channel Effectiveness by Specified Participant Characteristics

Table 3 presents data on specific participant characteristics, with reference to each channel, for callers who were both interested and eligible for the study ($n = 172$). Demographics did not generally differ significantly across the four mechanisms for recruitment. Thus individual gender, marital status, race/ethnicity, and military rank did not significantly differ across recruitment channel. There were significant differences with reference to age $F(3, 171) = 4.76$, $p < .01$, where significantly younger participants were recruited via family and friends (mean age: 23.43 years) or briefings (mean age: 25.31 years) compared to older participants recruited via advertisements and flyers (mean age: 28.68 years). There were no significant differences in channel of recruitment regardless of deployment, combat exposure, or alcohol or substance use diagnoses. Mental health symptoms did appear to differ by channel among those who were enrolled in the study. There was no effect for PTSD or depression symptom severity in channel effectiveness. However, those who were referred by family and friends had significantly greater anxiety symptoms than those who responded to military briefings $F(3, 134) = 2.85$, $p < .05$.

CONCLUSIONS

Substance abuse is at the forefront of public health concerns facing the military. Recently, the DoD charged the Institute of Medicine with the task of assessing and analyzing the policies and programs related to substance abuse in the military (IOM, 2012). Overwhelmingly, the IOM committee identified several barriers that limit access to substance abuse treatment and recommended that efforts should increase to prevent substance use disorders and increase access to care, including encouraging self-referral to treatment. The WCU is one program currently being evaluated designed to address untreated substance abuse in the military. Lessons learned through recruitment efforts of this project will be valuable for other researchers focused on the military, treatment providers, and those in the DoD who inform policies and campaigns to promote health.

The WCU project presents one method for designing recruitment advertisements targeting a military population. Focus groups with selected stakeholders as well as continual feedback from interested callers and soldiers on base highlighted the need to be culturally competent when creating ads and the value of continual dialogue with the target population. Additionally, on-base recruitment efforts in the form of advertisements,fl yers, and cards proved most successful in attracting the target population. Having an on-base presence was also valuable. Finding and cultivating a program "champion" from within the military is essential in navigating the many processes for approval to advertise on base as well as identifying and accessing opportune interactions with soldiers (soldier processing, substance use prevention trainings, etc.). Given that 36% of participants called the study in response to a briefing, a service provider or friend or family member, personal interaction that educates the soldier about the service offered is also key. This included WCU staff's presence at events, ASAP prevention personnel informing soldiers of the project, and briefing unit commanders to increase their ability to refer to the project for soldiers they were concerned about.

The content of the messages are vital as well. Focus groups and survey participants shaped the wording and images of the advertisements and brochures. The messages tapped into ambivalence surrounding substance use, but also conveyed hope for a solution. Keeping messages brief and highlighting important aspects of the project that address concerns about stigma such as and command not being notified helped to decrease barriers to calling. Focus groups and interactions with soldiers (in-cluding participants) reiterated and emphasized the idea that is a key to action in the military. This is one of the most common aspects that participants point to when asked what attracted them to participate in the study. Additionally, how the of the project eased their fear of punishment from the Army about seek-ing help for a substance use problem was also a very com-mon sentiment expressed. Although the ads intentionally evolved away from associating drinking with memories of war or PTSD, consonant with others' findings, the rate of trauma exposure, PTSD, anxiety, and depression among the interested callers was high. This suggests that marketing for a substance use program can and will reach soldiers who are struggling with mental health and may create an opportunity for providers to assess and provide feedback to enhance treatment seeking for these issues as well.

One noteworthy limitation of the study is that ads mentionfi nancial compensation for research participants. This adds to the service's attractiveness and therefore limits the generalizability of thesefi ndings to social service providers and studies that do not offer compensation. Additionally, a cost analysis of various channels was not possible with available data.

Overall, the check-up model has been successfully adapted for use with a variety of at-risk populations (see Walker, et al., 2007). Successful marketing has been key to all these adaptations. How do you get at-risk individuals to reach out for help has been the question at the heart of the marketing for the check-up. The WCU suggests that an adaptation of the check-up to specifically focus on soldiers has been effective in reaching individuals who are troubled by their substance abuse, but are unsure of what to do. And specifically, that marketing materials can be successfully developed with thoughtful and persistent feedback from military personnel. Further research should continue to explore the utility of a check-up model for military populations, particularly for addressing highly stigmatized topics such as substance abuse, PTSD, suicide, and military sexual trauma.

Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

RÉSUMÉ

Titre

S'adresser aux soldats atteints de troubles non traités liés à la consommation de drogues: Leçons tirées de l'élaboration d'une campagne marketing portant sur l'étude du bilan de santé du soldat.

Titre abrégé

S'adresser aux soldats atteints de toxicomanie non traitée

Synthèse

Le bilan de santé du soldat, consultation confidentielle effectuée par téléphone, s'adressait aux soldats d'une importante base militaire américaine, en cours d'exercice, atteints de troubles non traités liés à la consommation de drogues. Cet article décrit l'élaboration et la mise en œuvre réussie des stratégies marketing de l'étude à miparcours de la période de recrutement (2010–2012). Les analyses qualitatives des groupes à l'étude ($n = 26$) et les réponses aux enquêtes ($n = 278$) définissent le processus d'élaboration de la campagne. Les mesures des données

démographiques, de l'exposition aux médias, du SSPT, de l'anxiété et de la dépression recueillies auprès des appelés admissibles ($n = 172$) sont utilisées dans l'analyse quantitative permettant d'évaluer si la campagne a bien atteint cette catégorie de population. Les retombées, les limites et les pistes de futures recherches sont analysées. L'étude est financée par le département de la Défense des États-Unis.

RESUMEN

Título

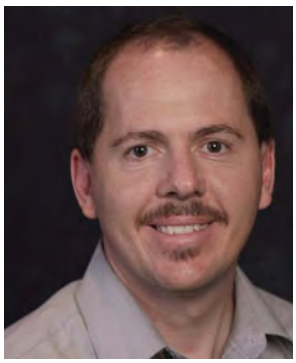
Ayudar a soldados con trastornos por abuso de sustancias sin tratar: lecciones aprendidas en el desarrollo de una campaña publicitaria para el estudio de revisión de combatientes

Título abreviado

Ayudar a soldados con abuso de sustancias sin tratar

La revisión de combatientes, una intervención telefónica confidencial, está diseñada para ayudar a soldados en servicio activo que sufren trastornos por abuso de sustancias sin tratar en grandes bases militares estadounidenses. Este documento describe el desarrollo y la implementación exitosa de las estrategias de comercialización del estudio en el punto medio del período de reclutamiento (de 2010 a 2012). Los análisis cualitativos de los grupos de discusión ($n = 26$) y las respuestas a las encuestas ($n = 278$) describen el proceso de diseño de la campaña. Los datos de mediciones de estadísticas demográficas, exposición en los medios, trastorno por estrés postraumático (Post Traumatic Stress Disorder, PTSD), ansiedad y depresión recopilados de las personas elegibles que llamaron ($n = 172$) se utilizan en análisis cuantitativos para evaluar el éxito de la campaña para ayudar a esta población. Se están analizando las implicancias, limitaciones y sugerencias para una futura investigación. El Departamento de Defensafinanci ó el estudio.

THE AUTHORS



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Thomas Walton, MSW—Mr. Walton has engaged in research with a diversity of populations, including homeless adolescents, people living with dementia, perpetrators of domestic violence, and soldiers grappling with substance use. Mr. Walton is a social worker and Project Director for the WCU study at the University of Washington's Innovative Programs Research Group. He earned his Master of Social Work from the University of Washington, focusing on policy and social service systems.

GLOSSARY

Check-up model: A form of brief intervention designed to attract individuals with untreated behavioral health issues to facilitate self-appraisa,l and to promote self-referral to treatment. Social marketing is used to attract the target population to the service. Following an assessment of the client's behaviors, beliefs, and perceived norms, the counselor uses a Motivational Interviewing approach to engage the client in a no-pressure discussion of the problem area with the goal of bolstering one's motivation to make positive changes.

McGuire's communication matrix: A conceptual framework to develop marketing strategies, particularly those inclusive of a "call to action" or behavior change. It consists offi ve communication components and outputs, i.e., the desired outcomes: (1) receiver, the intended recipient of the message; (2) message, the content being communicated; (3) channel, the means or strategies used to deliver the message to the receiver; (4) source, the institution or person sending the message; and (5) target, the anticipated outcome (i.e., what action the receiver should be prompted to take).

Motivational interviewing: A client-centered counseling style designed to promote self-reflection and self-appraisal of beliefs and problematic behaviors in order to overcome ambivalence about behavior change.

Social marketing: Communication strategies designed to increase knowledge or awareness, change thoughts, and/or stimulate behavior change.

Substance use disorder: A term used to encompass both Substance Abuse and Dependence disorders as described by the Diagnostic and Statistical Manual of Mental Disorders, 4th edition.

REFERENCES

Bray, R. M., Pemberton, M. R., Hourani, L. L., Witt, M., Olmsted, K. L., Brown, J. M., Weimer, B., Lance, M. E., Marsden, M. E., & Scheffler, S. (2009). Department of Defense Survey of Health Related Behaviors Among Active Duty Military Personnel. *Research Triangle Institute*. Research Triangle Park, NC.

Britt, T. W. (2000). The stigma of psychological problems in a work environment: Evidence from the screening of service members returning from Bosnia. *Journal of Applied Social Psychology, 30*, 1599–1618. doi: 10.1111/j.1559–1816.2000.tb 02457.x.

Castro, C. A. (2006). Military courage. In A.B. Adler, C.A. Castro, & T.W. Britt (Eds.). *Military life: The psychology of serving in peace and combat: Vol. 4. Military Culture* (pp. 60–78). Westport, CT: Praeger Security International.

Clinton-Sherrod, A. M., Barrick, K., & Gibbs, D. A. (2011). Soldier characteristics, alcohol abuse risk and mental health risk as treatment predictors. *Military Psychology, 23*(1), 22–35. doi: 10.1080/08995605.2011.534408.

Foran, H. M., Heyman, R. E., Slep, A. M. S., & Snarr, J. D. (2012). Hazardous alcohol use and intimate partner violence in the military: Understanding protective factors. *Psychology of Addictive Behaviors, 26*(3), 471–483. doi: 10.1037/a0027688.

Gibbs, D. A., & Olmsted, K. L. R. (2011). Preliminary evaluation of the Alcohol Treatment Education Program. *Military Psychology, 23*, 97–111. doi:10.1080/08995605.2011.534409.

Gibbs, D. A., Olmsted, K. L. R., Brown, J. M., & Clinton-Sherrod, M. C. (2011). Dynamics of stigma for alcohol and mental health treatment among army soldiers. *Military Psychology, 23*(1), 36–51. doi: 10.1080/08995605.2011.534409.

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan mental health problems, and barriers to care. *The New England Journal of Medicine, 351*(1), 13–22. doi: 10.1056/NEJMoa040603

IOM (Institute of Medicine). (2012). *Substance use disorders in the U.S. armed forces*. Washington, DC: The National Academies Press.

Jacobson, I. G., Ryan, M. A. K., Hooper, T. I., Smith, T. C, Amoroso, P. J., Boyko, E. J., Gackstetter, G. D., Wells, T. S., & Bell, N. S. (2008). Alcohol use and alcohol-related

problems before and after military combat deployment. *Journal of the American Medical Association, 300*(6), 663–675. doi:10.1001/jama.300.6.663.

Keen, S. M., Kutter, C. J., Niles, B. L., & Krinsley, K. E. (2008). Psychometric properties of PTSD checklist in sample of male veterans. *Journal of Rehabilitation Research & Development, 45*(3), 465–474.

Kotler, P., & Roberto, E. L. (1989). *Social marketing: Strategies for changing public behavior* (p. 25). New York: Free Press.

Kranzler, H. R., Kadden, R. M., Babor, T. F., Tennen, H., & Rounsville, B. J. (1996). Validity of the SCID in substance abuse patients. *Addiction, 91*(6), 859–868. doi: 10.1080/09652149640068.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*, 606–613. doi: 10.1046/j.1525–1497.2001.01600906.x.

Lande, R. G., Marin, B. A., & Chang, A. S. (2008). Survey of alcohol use in the U.S. Army. *Journal of Addictive Diseases, 27*(3), 115–121. doi: 10.1080/10550880802122711.

Mattiko, M. J., Olmsted, K. L. R., Brown, J. M., & Bray, R. M. (2011). Alcohol use and negative consequences among active duty military personnel. *Addictive Behaviors, 36*(6), 608–614. doi: http://dx.doi.org/10.1016/j.addbeh.2011.01.023.

Mbilinyi, L. F., Zegree, J., Roffman, R. A., Walker, D., Neighbors, C., & Edleson, J. (2008). Development of a marketing campaign to recruit non-adjudicated and untreated abusive men for a brief telephone intervention. *Journal of Family Violence, 23*, 343–351. doi: 10.1007/s10896–008–9157–8.

McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (pp. 233–346). New York, NY: Random House.

Miller, W. R., & Sovereign, R. G. (1989). The Check-up: A model for early intervention in addictive behaviors. In W. R. Miller, P. E. Nathan & G. A. Marlatt (Eds.), *Addictive Behaviors: Prevention and Early Intervention* (pp. 219–231). Amsterdam: Swets & Zeitlinger.

Picciano, J. F., Roffman, R. A., Kalichman, S. C., & Walker, D. D. (2007). Lowering obstacles to HIV prevention services: Effects of a brief, telephone-based intervention using motivational enhancement therapy. *Annals of Behavioral Medicine, 34*(2), 177–187. doi: 10.1007/BF02872672.

Santiago, P. N., Wilk, J. E., Milliken, C. S., Castro, C. A., Engel, C. C., & Hoge, C. W. (2010). Screening for alcohol misuse and alcohol-related behaviors among combat veterans. *Psychiatric Services, 61*(6), 575–581. doi: 10.1176/appi.ps.61.6.573.

Spitzer, R. L., Kroenke, K., Williams, J. B.W., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine*, *166*, 1092–1097.

Stephens, R. S., Roffman, R. A., Fearer, S. A., Williams, C., Picciano, J. F., & Burke, R. S. (2004). The Marijuana Check-up- reaching users who are ambivalent about change. *Addiction, 99*(10), 1323–1332. doi: 10.1111/j.1360–0443.2004.00832.x.

U. S. Army. 2009. *Army regulation 600–85: The Army substance abuse program*. http://www.apd.army.mil/pdffiles/r600_85.pdf (accessed September 19, 2 012).

Vogt, D. (2011). Mental health—related beliefs as a barrier to service use for military personnel and veterans: A review. *Psychiatric Services, 62*(2), 135–142. doi: 10.1176/appi.ps.62.2.135.

Walker, D. D., Stephens, R., Roffman, R., DeMarce, J., Lozano, B., & Towe, S. (2011). Randomized controlled trial of motivational enhancement therapy with no treatment- seeking adolescent cannabis users: A further test of the teen marijuana check-up. *Psychology of Addictive Behaviors, 25*(3), 474–484. doi: 10.1037/a0024076.

Williams, J. O., Bell, N. S., & Amoroso, P. J. (2002). Drinking and other risk taking behaviors of enlisted male soldiers in the US Army. *Work: A Journal of Prevention, Assessment and Rehabilitation, 18*, 141–150.

Zinzow, H., Britt, T., McFadden, A., Burnette, C., & Gillispie, S. (2012). Connecting active duty and returning veterans to mental health treatment: Interventions and treatment adaptations that may reduce barriers to care. *Clinical Psychology Review, 32*(8), 741–753. doi: http://dx.doi.org/10.1016/j.cpr.2012.09.002.

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Normative Misperceptions of Alcohol Use Among Substance Abusing Army Personnel

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This research examines discrepancies among perceived norms, actual norms, and own behavior for alcohol in the military. Participants included 159 substance-abusing, active-duty U.S. Army personnel. Participants' estimates of the average number of drinks consumed by Army personnel were significantly higher than the actual norm. Participants also overestimated the percentage of Army personnel who have engaged in heavy episodic drinking relative to the actual percentage. Participants' own drinking was associated with their overestimations of other military personnel drinking but not other civilian drinking. Results provide foundational support for the use of military-specific normative feedback as a potential intervention strategy.

Keywords: Social norms, drinking, Army, intervention, military, alcohol, social influence, misperception, substance use, active duty

ALCOHOL USE IN THE MILITARY

Alcohol use has long been an established part of military culture (Ames, Duke, Moore, & Cunradi, 2009; Bray et al., 2009; Institute of Medicine, 2012). Alcohol use and related problems are more prevalent within the military than rates found in the civilian population and among other high-risk civilian populations, such as college students (Ames & Cunradi, 2004/2005; Eisen et al., 2012). Of those in the military, younger service members are at the highest risk for alcohol use and problems (Bray et al., 2009; Institute of Medicine, 2010; Jacobson et al., 2008; Lande, Marin, Chang, & Lande, 2008; Stahre, Brewer, Fonseca, & Naimi, 2009). For example, the most recent military-wide survey of health-related behaviors found that 32% of soldiers aged 21 to 25 were heavy drinkers compared to 22% of soldiers of all ages and 16% of same-age civilians (Bray et al., 2009). During a 12-month period, more than one-fifth of junior enlisted personnel experienced serious consequences from alcohol use,

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including military punishment or alcohol-related arrest (Ames & Cunradi, 2004/2005; Bray et al., 2009). In addition, studies of military populations have found that excessive alcohol use is associated with poor job performance and increased rates of suicide, homicide, domestic violence, post-traumatic stress disorder (PTSD), and depression (Eisen et al., 2012; Institute of Medicine, 2012; Martin et al., 2010).

SOCIAL NORMS AND DRINKING

In the most general use of the term, social norms refer to perceived or actual standards of expectations, attitudes, or behavior (Sherif, 1936). One type of social norm, distinguished by Cialdini and colleagues (Cialdini, 2012; Cialdini, Kallgren, & Reno, 1991), is a descriptive norm, which usually refers to the prevalence of a given behavior. Actual descriptive norms refer to actual behavior (e.g., typical number of drinks per occasion among Army personnel), whereas perceived norms refer to an individual's perception of the descriptive norm (e.g., an individual's estimate of the typical number of drinks per occasion among Army personnel). This is not a trivial distinction, given that in other populations, including college students and the general population, research has shown a tendency for individuals to overestimate descriptive drinking norms (Borsari & Carey, 2003; Cunningham, Neighbors, Wild, & Humphreys, 2012; Perkins, 2007). Furthermore, it is the perception of the norm, rather than the norm itself, which is most likely to influence behavior. Indeed, perceived descriptive norms are among the strongest predictors of drinking among young adult, heavy-drinking college students (Neighbors, Lee, Lewis, Fossos, & Larimer, 2007). These findings have been instrumental in the development of empirically supported, brief, computer-delivered personalized normative feedback interventions in the college student population (e.g., Lewis & Neighbors, 2007; Neighbors, Larimer, & Lewis, 2004; Neighbors, Lewis et al., 2010). The same patterns identified among military personnel would provide a theoretical foundation for a potentially cost-effective, web-based brief intervention among military personnel.

Heavy drinking has been thought of as part of military life from the inclusion of rum rations in the British Royal Navy to leave time where drinking rates are often elevated (Federman, Bray, & Kroutil, 2000; Standage, 2005). Military culture has emphasized drinking as a means for group bonding, recreation, and stress relief (Ames, Cunradi, Moore, & Stern, 2007). Alcohol is typically easy to access both on and off base, is inexpensive, and is easy to obtain in base exchanges and commissaries (Moore, Ames, & Cunradi, 2007). Not surprisingly, active-duty military attitudes reflect these perceptions. For example, 38.5% of heavy drinkers in the military reported drinking because it was part of being in the military, as compared to 10% of light drinkers (Bray et al., 2009). Heavy drinkers also endorsed strong beliefs that drinking was the only recreation available (23.1%), that they had been encouraged to drink at parties (21.1%), and that leadership was tolerant of off-duty intoxication (31.3%; Bray et al., 2009).

Military personnel may also have greater exposure to elevated social norms regarding drinking due to increased time with peers who model drinking behavior, which in turn may inflate perceptions of military drinking. In such communities as the military where individuals work, live, and socialize together this can lead to close-knit groups and behavioral norms, which may further influence consumption (Ames et al., 2009; Bray, Bae, Federman, & Wheeless, 2005). Researchers have just begun to examine the role of social norms in understanding drinking behaviors in the military. In active-duty military, Williams, Herman-Stahl, Calvin, Pemberton, and Bradshaw (2009) found that perceiving same-age, active-duty military personnel to drink more was associated with more drinking days and heavy-episodic drinking occasions at one- and six-month follow-up assessments. Bray and colleagues (2009) found that alcohol consumption is positively correlated with beliefs about supervisors' drinking and that one-quarter of heavy-drinking military personnel believe that others at their installation and at their pay grade believe it is acceptable to drink to the point of "losing control." Furthermore, Ames and colleagues (Ames et al., 2007; 2009) have found perceived norms to be significantly associated with heavy drinking among Navy careerists and Navy enlistees.

It is unknown to what extent military or civilian norms are better predictors of drinking among military personnel. Social identity theory (SIT; Tajfel & Turner, 1986) provides a theoretical framework for understanding the role of normative salience in the influence of social norms (Tajfel & Turner, 1986). Several studies have shown that normative perceptions of more proximal groups (e.g., same-sex peers, close friends), in comparison to more distal groups (e.g., typical students), are more strongly associated with alcohol use (Larimer et al., 2009). Military training is designed to build identification with the military itself and with the members of one's unit, which may intensify the role of identification and the role of drinking norms in this population (Griffith, 2009; Siebold, 2007).

CURRENT STUDY

The present research was designed to evaluate whether discrepancies between actual and perceived drinking norms exist among military personnel. We were also interested in examining whether discrepancies were similar for military-specific versus civilian drinking norms. Furthermore, we were interested in evaluating whether military-specific perceived norms would be more strongly associated with drinking relative to perceived civilian norms.

METHOD

Participants and Procedure

The following analysis stems from the Warrior Check-Up, a Department of Defense–funded randomized clinical trial of a brief telephone-delivered intervention for soldiers with an

untreated substance use disorder. Participants were screened from 538 callers who responded to various forms of advertising media including newspaper ads, print media distributed throughout the military base, presentations at briefings, and referrals from professionals and friends. Advertisements offered soldiers a opportunity to participate in research and to speak with a civilian counselor about their alcohol- or drug-use concerns (for analysis of recruitment procedures, see Walton et al., 2013). Recruitment occurred between 2010 and 2013 at a large base in the Pacific North-west. All procedures were approved by the university institu-tional review board and the appropriate military institutional review board.

After a brief discussion establishing informed consent, interested callers completed a screening phone call to determine eligibility to participate in the project. El-igibility criteria included current active-duty status in the Army; abuse or dependence on alcohol, drugs, or prescrip-tion medications in the past 90 days; fluency in English; no evidence of psychosis; and not currently participating in substance abuse treatment. Substance abuse and dependence diagnoses were assessed using the Psychoactive Substance Use Disorders section of the Structured Clinical Interview for *DSM*-IV (SCID; First, Spitzer, Gibbon, & Williams, 1995). The SCID was developed to improve interrater diagnostic reliability; Kappas for substance abuse/dependence disorders have typically ranged from .75 to .84.

Eligible callers who completed the screening process were scheduled to complete a baseline assessment by telephone. Participants had the right to refuse to answer any or all questions. Of the 304 callers who completed screening, 159 were found eligible to participate in the study and completed a baseline assessment for the larger intervention trial. Data for the present study were taken from this baseline assessment. The 159 participants identified their race as follows: Caucasian (57.2%), African American (17.0%), Asian/Asian American (1.9%), American Indian (0.6%), and multiracial or otherwise racially identified (18.7%). In addition, 15.7% of the respondents were Hispanic. The age distribution of participants was 18 to 25 (45.3%), 26 to 30 (28.3%), 31 to 40 (20.1%), 41 and up (6.3%). Lower-ranking enlisted soldiers (E1 through E4) comprised 54.8% of the sample, with non-commissioned officers (E5 through E8) at 39.4%, and officers (O1 through O6) at 5.8%. The sample was also predominately male (91.2%). Eligible callers were demographically similar to ineligible callers.

Measures

Alcohol Consumption

Alcohol use was assessed with the Daily Drinking Questionnaire (DDQ) and the Quantity-Frequency scale (QF; Collins, Parks, & Marlatt, 1985; Dimeff, Baer, Kivlahan, & Marlatt, 1999). The DDQ asks participants to think about a typical week and estimate the typical number of drinks they consume on each day of the week over the past month. Responses for each day of the week are summed to provide a score for the average number of drinks consumed per week. Three items were also included to assess frequency, typical drinking, and peak drinking. Frequency was assessed by an item asking participants how many days per week they typically consumed alcohol over the past month. Typical drinking was assessed by asking participants the average number of drinks consumed during a typical occasion in the past month. Finally, peak drinking was assessed by asking participants the number of drinks consumed on their heaviest drinking occasion in the past month.

Perceived Norms

Perceived norms were assessed using a modified version of the Drinking Norms Rating Form (Baer, Stacy, & Larimer, 1991; Dimeff et al., 1999). This questionnaire was constructed to mirror the DDQ but assessed perceptions of others' drinking rather than one's own drinking. Perceived norms were assessed for both military personnel and civilians. Thus, participants were asked: "Consider a typical week during the past 30 days. How much alcohol (measured in number of drinks) do you think the average person in the Army drinks on each day of a typical week?" Responses for each day of the week were summed to provide a score for the perceived norms for drinks per week (military). Items also assessed perceived norms for frequency, typical drinking, and peak drinking in the Army mirroring items from the DDQ described. Perceived norms were asked using the same format with respect to civilian individuals.

Base Rate Norms for Active-Duty Army Personnel and Civilians

Military norms were created based on the 2005 Department of Defense Survey of Health Related Behaviors (SHRB), whose participants were selected to represent active-duty personnel from all branches, ranks, and basic demographic variables. Data were collected using an anonymous self-administered questionnaire. Results from the 3,639 Army respondents were weighted to represent all active-duty soldiers.

Data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC, 2001) study provided the civilian population norms. Collected between 2001 and 2002 from 43,093 noninstitutionalized U.S. households, these data were also weighted to provide a nationally representative sample (Grant, Kaplan, Shepard, & Moore, 2003). Military families were excluded from the data set when calculating civilian norms. Prior research has used NESARC data to calculate the actual norms given in normative feedback (Chan, Neighbors, Gilson, Larimer, & Marlatt, 2007). Both studies report the average ounces of daily ethanol intake, which was

divided by 0.5 to convert the variable to number of "drinks" per day (0.5 ounces of ethanol per drink).

Analysis Strategy

The evaluation of accuracy of perceived norms for drinking were based on the typical number of drinks per occasion among Army personnel ($M = 3.86$; Bray et al., 2006) and in the general population ($M = 1.69$; Chan et al., 2007; NESARC, 2001). Number of drinks per typical drinking occasion was used to evaluate accuracy, given its practical applicability in constructing normative feedback and the availability of actual norms for both military and general populations. One-sample *t* tests were used in comparing these norms with participants' own behavior and perceptions. Independent samples *t* tests were used to compare participants' behavior with their perceptions. Effect sizes for one-sample *t* tests (Cohen's *d*) were calculated by taking the differences between the mean of the perceived norm and the estimated population value divided by the standard deviation of the perceived norm (Cohen, 1988). For independent sample *t* tests and tests of regression parameter estimates, effects sizes (*d*) were calculated using the formula $d = 2t/df$ (Rosenthal & Rosnow, 1991). Effect sizes of .20, .50, and .80 are considered small, medium, and large, respectively (Cohen, 1992).

RESULTS

Inaccuracy of Perceived Norms in Military and Civilian Populations

Results showed that participants' estimates of typical number of drinks per occasion among Army personnel ($M = 5.52$, $SD = 2.95$) were significantly higher than the actual norm ($M = 3.86$), $t\,(156) = 7.01$, $p < .001$, $d = .56$. Similarly, participants' estimates of typical number of drinks per occasion in the general population ($M = 4.59$, $SD = 2.43$) were significantly higher than the actual norm ($M = 1.69$), $t\,(156) = 16.61$, $p < .001$, $d = 1.19$. Thus, participants overestimated drinking norms regarding typical number of drinks for both military and civilian populations.

In comparison, their own typical number of drinks per occasion ($M = 5.39$, $SD = 3.35$) did not differ from their perceptions of the average number of drinks per occasion among Army personnel, $t\,(155) = -.51$, $p = .61$, $d = .08$. In contrast, their own typical number of drinks per occasion was higher than their perceptions of typical drinking among civilians, $t\,(155) = 2.92$, $p = .004$, $d = .47$, and higher than the actual norms for Army personnel, $t\,(154) = 5.67$, $p < .001$, $d = .91$, and civilians, $t\,(155) = 14.09$, $p < .001$, $d = 2.26$. Thus, participants believed that their typical number of drinks consumed was similar to other military personnel but higher than civilians. Figure 1 presents means and standard errors for perceived norms relative to actual estimates.

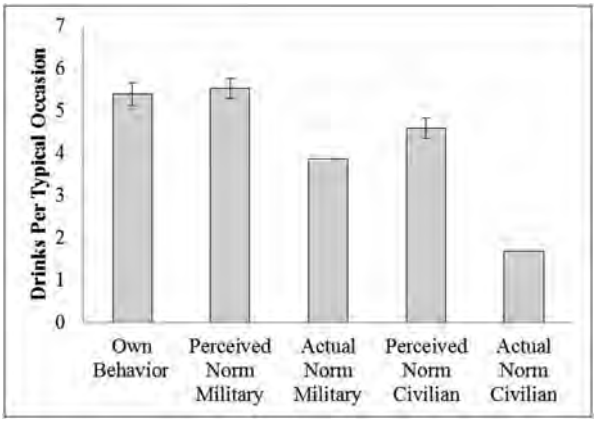

FIGURE 1 Means and standard errors of self-reported number of drinks per typical drinking occasion compared with perceived and actual norms among the military and civilian populations.

Comparisons Between Own Drinking and Perceived Norms in Military and Civilian Populations

Although actual norm estimates were not available for additional drinking outcomes in both military and civilian populations, we were interested in how participants' own drinking related to their perceived norms for other drinking outcomes (i.e., drinks per week, drinking frequency, and number of drinks on the peak occasion) and whether the pattern for these outcomes was similar to typical drinks per occasion described.

Figure 2 graphically presents means and standard errors for participants' own drinking, perceived norm for the

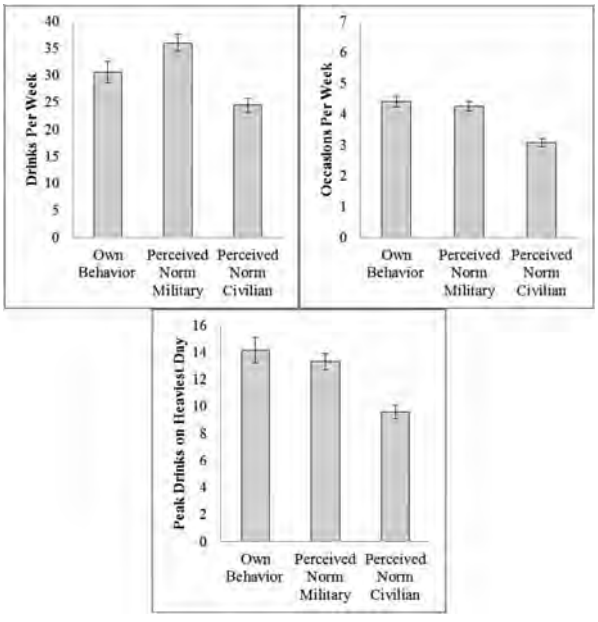

FIGURE 2 Means and standard errors of own drinking and perceived norms among the military and civilian populations on drinks per week, number of drinking occasions per week, and number of peak drinks on heaviest drinking day.

TABLE 1
Perceived Norms and Own Drinking for Drinks per Week, Frequency and Peak Drinks

	Perceived Norm: Military		Perceived Norm: Civilian		Own Behavior	
Criterion	*M*	*SD*	*M*	*SD*	*M*	*SD*
Drinks per week	36.03	20.08	24.48	16.31	30.67	24.76
Drinking frequency	4.25	1.88	3.08	1.69	4.40	2.23
Peak drinks	13.34	7.66	9.60	6.02	14.19	11.71

military, and perceived norm for the civilian population on three drinking outcomes: drinks per week, drinking frequency, and number of drinks on the peak occasion in past month. Means and standard deviations are presented in Table 1. Paired-samples *t* tests revealed similar patterns across drinking outcomes.

Participants generally perceived drinking norms among the military to be similar to their own drinking. Their own behavior was not significantly different from perceived military norm for drinking frequency, t (154) = 0.84, p = .40, or peak number of drinks in the past month, t (150) = 0.90, p = .37. For drinks per week, own behavior was lower than the perceived military norm, t (154) = −2.41, p = .02.

In contrast, participants' own behavior was significantly higher than the perceived civilian norm for drinks per week, t (152) = 2.77, p = .006, drinking frequency, t (153) = 6.15, p < .001, and peak drinks in the previous month, t (148) = 4.45, p < .001. There was also a consistent pattern indicating that perceived military norms were higher than perceived civilian norms for drinks per week, t (152) = 7.66, p < .001, drinking frequency, t (154) = 7.38, p < .001, and peak number of drinks, t (152) = 6.17, p < .001. In sum, the pattern of results for these outcomes appeared to follow the same pattern observed for typical drinks per occasion.

Associations Between Perceived Norms and Drinking Behavior

Table 2 includes regression results examining own drinking as a function of perceived military norms and perceived civilian norms for drinks per week, drinking frequency, drinks per typical occasion, and peak number of drinks in the past month. Norms among the military predicted own drinking in all four drinking outcomes (average d = .54), whereas norms among civilians did not uniquely predict own drinking in three of the four drinking outcomes (average d = .10).

DISCUSSION

The focus of the present study was to examine the perceptions that Army personnel have about civilian and Army peers' drinking behavior and to evaluate the relationship of these beliefs on one's own drinking behavior. This can assist in evaluating the potential utility of providing social norms feedback to military personnel. Social norms feedback is an important component to many brief interventions (e.g., motivational enhancement therapy, social norms campaigns) and has been studied as a stand-alone intervention with college students (Doumas, Kane, Navarro, & Roman, 2011; Lewis & Neighbors, 2007; Lojewski, Rotunda, & Arruda, 2010; Neighbors et al., 2004; Neighbors, Lewis et al., 2010). Normative feedback has recently been incorporated into computerized interventions for military populations (Pemberton et al., 2011; Simon-Arndt, Hurtado, & Patriarca-Troyk, 2006), yet studies have not reported the isolated effects of such feedback on drinking behavior. Because alcohol abuse is now considered to be a public health crisis in the military (Institute of Medicine, 2012), identifying effective methods of prevention and intervention are of high importance, and social norms feedback is one viable option.

Findings indicated that Army personnel grossly overestimate how much civilians and other soldiers drink. They

TABLE 2
Self-Reported Drinking as a Function of Perceived Norms Among the Military and Among Civilians

Criterion	Predictor	b	*t*	*β*	*p*	*d*	R^2
Drinks per week	Military norm	.33	2.83	.263	.005	.464	
	Civilian norm	−.04	−.28	.026	.781	−.046	
							.063
Drinking frequency	Military norm	.403	4.04	.341	<.001	.658	
	Civilian norm	−.06	−.55	−.046	.584	−.090	
							.105
Peak drinks	Military norm	.32	2.39	.213	.018	.396	
	Civilian norm	.18	1.11	.099	.269	.184	
							.074
Drinks per typical occasion	Military norm	.36	3.88	.313	<.001	.634	
	Civilian norm	.23	2.05	.165	.042	.335	
							.165

believe that they drink about the same as other people in the Army but more than others in the general population. In three of four outcomes, only perceptions of other Army personnel were found to be uniquely related to their own drinking. The more they believed other soldiers drank, the more they reported drinking themselves.

Theoretical requirements for effective normative feedback interventions require that there be a normative misperception to correct and that the norms be associated with one's own drinking behavior. In this case, both requirements appear to be met for military norms but not civilian norms. Participants' own drinking was associated with their perceptions of typical drinking among other Army personnel, but their perceptions were not correct. In fact, they overestimated how much other Army personnel consume on a typical occasion. Moreover, to the extent that soldiers base their own drinking on misperceptions of what is typical among their Army peers, correction of these misperceptions may reduce their drinking.

These results are important because they suggest that if normative interventions are to be used with Army personnel, the normative feedback provided should rely on military rather than civilian data. Work based on social identity theory with college students similarly suggests that associations between perceived norms and one's own drinking are stronger for groups with which one identifies more closely (Neighbors, LaBrie et al., 2010; Reed, Lange, Ketchie, & Clapp, 2007). Indeed, the fact that perceived norms for other Army personnel were uniquely associated with one's own drinking, but perceived civilian norms were not, suggests that identification with other Army personnel may be an important variable to consider. Further research might also consider the potential utility of specific norms such as using data at the unit level or by job (such as military police or special forces) within the military. It is likely that specific beliefs are formed around typical drinking behavior by soldiers who employ certain jobs or possibly by rank within the military, and these perceptions differ based on the characteristics of the soldier. This suggestion is underscored by data indicating that drinking in the military is heaviest among individuals who are lower rank, have less education, and are usually younger than 35 (Bray, Bae, Federman, & Wheeless, 2005). These findings also suggest that universal prevention strategies aimed at lowering overall drinking misperceptions among Army personnel may be beneficial to pursue as a potential intervention strategy.

Several limitations should be recognized in consideration of these findings. These data were cross-sectional and limit our ability to draw causal inference regarding perceived norms and behavior. Further, the study sample was composed of Army personnel who met criteria for a substance abuse or dependence disorder, were not engaged in substance abuse treatment, and volunteered for a research study as an opportunity to "take stock of their drinking and consider their options." Although participants were not engaged in treatment for substance abuse, the fact that they met criteria for a substance use disorder limits the extent to which the findings may be generalized to the Army as a whole. Future research may extend this paradigm to examine how findings might be different in a nonclinical sample or among social drinkers. Nevertheless, implementation of social norms–based interventions is most likely to be useful among heavier drinkers, and this research provides a preliminary foundation for such an approach. In addition, social identity theory posits that the most important influences in guiding drinking behavior are also the most personally proximal. As age was not included in the assessment of norms and drinking behaviors, future research may also wish to consider proximity in age and developmental life stage of the social reference group when considering one's own drinking behavior and estimates of others' drinking behavior as well.

This study represents an important step for establishing normative feedback as a stand-alone intervention in the military. This approach has been used extensively in college populations and might be readily adapted for the military, offering a brief, low-cost intervention approach that can be delivered online to a large proportion of soldiers. This research provides empirical evidence supporting the theoretical foundation for this approach in the Army population, thereby suggesting the potential for this approach to be successful.

REFERENCES

Ames, G. M., & Cunradi, C. B. (2004/2005). Alcohol use and preventing alcohol-related problems among young adults in the military. *Alcohol Research and Health*, *28*, 252–257.

Ames, G. M., Cunradi, C. B., Moore, R. S., & Stern, P. (2007). Military culture and drinking behavior among U.S. Navy Careerists. *Journal of Studies on Alcohol and Drugs*, *68*, 336–344.

Ames, G. M., Duke, M. R., Moore, R. S., & Cunradi, C. B. (2009). The impact of occupational culture on drinking behavior of young adults in the U.S. Navy. *Journal of Mixed Methods Research*, *3*, 129–150.

Baer, J. S., Stacy, A., & Larimer, M. (1991). Biases in the perception of drinking norms among college students. *Journal of Studies on Alcohol*, *52*, 580–586.

Borsari, B., & Carey, K. B. (2003). Descriptive and injunctive norms in college drinking: a meta-analytic integration. *Journal of Studies on Alcohol*, *64*, 331–341.

Bray, R. M., Bae, K. H., Federman, E. B., & Wheeless, S. C. (2005). Regional differences in alcohol use among U.S. military personnel. *Journal of Studies on Alcohol*, *66*, 229–238.

Bray, R. M., Hourani, L. L., Rae Olmsted, K. L., Witt, M., Brown, J. M., Pemberton, M. R., . . . Vandermaas-Peeler, R. (2006). *2005 Department of Defense Survey of Health Related Behaviors Among Active Duty Military Personnel* (RTI/7841/106-FR). Research Triangle Park, NC: Research Triangle Institute.

Bray, R. M., Pemberton, M. R., Hourani, L. L., Witt, M., Olmsted, K. L., Brown, J. M., . . . Scheffler, S. (2009). *Department of Defense Survey of Health Related Behaviors Among Active Duty Military Personnel* (RTI/10940-FR). Research Triangle Park, NC: Research Triangle Institute.

Chan, K. K., Neighbors, C., Gilson, M., Larimer, M. E., & Marlatt, G. A. (2007). Epidemiological trends in drinking by age and gender:

Providing normative feedback to adults. *Addictive Behaviors*, *32*, 967–976.

Cialdini, R. B. (2012). The focus theory of normative conduct. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 2, pp. 295–312). Thousand Oaks, CA: Sage.

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human-behavior. *Advances in Experimental Social Psychology*, *24*, 201–234.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. San Diego, CA: Academic Press.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159.

Collins, R. L., Parks, G. A., & Marlatt, G. A. (1985). Social determinants of alcohol consumption: The effects of social interaction and model status on the self-administration of alcohol. *Journal of Consulting and Clinical Psychology*, *53*, 189–200.

Cunningham, J. A., Neighbors, C., Wild, T. C., & Humphreys, K. (2012). Normative misperceptions about alcohol use in a general population sample of problem drinkers from a large metropolitan city. *Alcohol and Alcoholism*, *47*, 63–66.

Dimeff, L. A., Baer, J. S., Kivlahan, D. R., & Marlatt, G. A. (1999). *Brief alcohol screening and intervention for college students*. New York, NY: Guilford Press.

Doumas, D. M., Kane, C. M., Navarro, T. B., & Roman, J. (2011). Decreasing heavy drinking in first-year students: Evaluation of a web-based personalized normative feedback program administered during orientation. *Journal of College Counseling*, *14*, 5–20.

Eisen, S. V., Shultz, M. R., Vogt, D., Glickerman, M. E., Elwy, R., Drainoni, M., . . . Martin, J. (2012). Mental and physical health status and alcohol and drug use following return from deployment to Iraq or Afghanistan. *American Journal of Public Health*, *102*(S1), S66–S73.

Federman, E. B., Bray, R. M., & Kroutil, L. A. (2000). Relationships between substance use and recent deployments among women and men in the military. *Military Psychology*, *12*, 205–220.

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. (1995). The structured clinical interview for *DSM*-III-R personality disorders (SCID-II). *Journal of Personality Disorders*, *9*, 83–91.

Grant, B. F., Kaplan, K., Shepard, J., & Moore, T. (2003). *Source and accuracy statement for Wave 1 of the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions*. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.

Griffith, J. (2009). Being a reserve soldier: A matter of social identity. *Armed Forces and Society*, *36*, 38–64.

Institute of Medicine. (2010). *Returning home from Iraq and Afghanistan: Preliminary assessment of readjustment needs of veterans, service members, and their families.* Washington, DC: National Academies Press.

Institute of Medicine. (2012). *Substance use disorders in the U.S. armed forces*. Washington, DC: National Academies Press.

Jacobson, I. G., Ryan, M. A., Hooper, T. I., Smith, T. C., Amoroso, P. J., Boyko, E. J., . . . Bell, N. S. (2008). Alcohol use and alcohol-related problems before and after military combat deployment. *Journal of the American Medical Association*, *300*, 663–675.

Lande, R. G., Marin, B. A., Chang, A. S., & Lande, G. R. (2008). Survey of alcohol use in the U.S. Army. *Journal of Addictive Diseases*, *27*, 115–121.

Larimer, M. E., Kaysen, D., Lee, C. M., Lewis, M. A., Dillworth, T., Montoya, H. D., & Neighbors, C. (2009). Evaluating level of specificity of normative referents in relation to personal drinking behavior. *Journal of Studies on Alcohol and Drugs, s16*, 115–121.

Lewis, M. A., & Neighbors, C. (2007). Optimizing personalized normative feedback: The use of gender-specific referents. *Journal of Studies on Alcohol and Drugs*, *68*, 228–237.

Lojewski, R., Rotunda, R. J., & Arruda, J. E. (2010). Personalized normative feedback to reduce drinking among college students: A social norms intervention examining gender-based versus standard feedback. *Journal of Alcohol and Drug Education*, *54*, 19–40.

Martin, S. L., Gibbs, D. A., Johnson, R. E., Sullivan, K., Clinton-Sherrod, M., Walters, J. L. H., & Rentz, E. D. (2010). Substance use by soldiers who abuse their spouses. *Violence Against Women*, *16*, 1295–1310.

Moore, R. S., Ames, G. M., & Cunradi, C. B. (2007). Physical and social availability of alcohol for young enlisted naval personnel in and around home port. *Substance Abuse Treatment, Prevention, and Policy*, *2*, 17–28.

National Epidemiologic Survey on Alcohol and Related Conditions. (2001). [Data file]. National Institute on Alcohol Abuse and Alcoholism. Available at http:niaaa.census.gov/.

Neighbors, C., LaBrie, J. W., Hummer, J. F., Lewis, M. A., Lee, C. M., Desai, S., . . . Larimer, M. E. (2010). Group identification as a moderator of the relationship between social norms and alcohol consumption. *Psychology of Addictive Behaviors*, *24*, 522–528.

Neighbors, C., Larimer, M. E., & Lewis, M. A. (2004). Targeting misperceptions of descriptive drinking norms: Efficacy of a computer-delivered personalized normative feedback intervention. *Journal of Consulting and Clinical Psychology*, *72*, 434–447.

Neighbors, C., Lee, C. M., Lewis, M. A., Fossos, N., & Larimer, M. E. (2007). Are social norms the best predictor of outcomes among heavy-drinking college students? *Journal of Studies on Alcohol and Drugs*, *68*, 556–565.

Neighbors, C., Lewis, M. A., Atkins, D. C., Jensen, M. M., Walter, T., Fossos, N., . . . Larimer, M. E. (2010). Efficacy of web-based personalized normative feedback: A two-year randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *78*, 898–911.

Pemberton, M. R., Williams, J., Herman-Stahl, M., Calvin, S. L., Bradshaw, M. R., Bray, R. M., . . . Mitchell, G. M. (2011). Evaluation of two web-based alcohol interventions in the U.S. military. *Journal of Studies on Alcohol and Drugs*, *72*, 480–489.

Perkins, H. W. (2007). Misperceptions of peer drinking norms in Canada: Another look at the "reign of error" and its consequences among college students. *Addictive Behaviors*, *32*, 2645–2656.

Reed, M. B., Lange, J. E., Ketchie, J. M., & Clapp, J. D. (2007). The relationship between social identity, normative information, and college student drinking. *Social Influence*, *2*, 269–294.

Rosenthal, R., & Rosnow, R. (1991). *Essentials of behavioral research: Methods and data analysis.* New York, NY: McGraw Hill.

Sherif, M. (1936). *The psychology of social norms*. New York, NY: Harper.

Siebold, G. L. (2007). The essence of military group cohesion. *Armed Forces and Society*, *33*, 286–295.

Simon-Arndt, C. M., Hurtado, S. L., & Patriarca-Troyk, L. A. (2006). Acceptance of web-based personalized feedback: User ratings of an alcohol misuse prevention program targeting U.S. marines. *Health Communication*, *20*, 13–22.

Stahre, M. A., Brewer, R. D., Fonseca, V. P., & Naimi, T. S. (2009). Binge drinking among U.S. active-duty military personnel. *American Journal of Preventive Medicine*, *36*, 208–217.

Standage, T. (2005). *A history of the world in 6 glasses*. New York, NY: Walker.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Worchel & L. W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.

Walton, T. O., Walker, D. D., Kaysen, D. L., Roffman, R. A., Mbilinyi, L., & Neighbors, C., (2013). Reaching soldiers with untreated substance use disorder: Lessons learned in the development of a marketing campaign for the warrior check-up study. *Substance Use and Misuse*, *43*, 908–921.

Williams, J., Herman-Stahl, M., Calvin, S. L., Pemberton, M., & Bradshaw, M. (2009). Mediating mechanisms of a military web-based alcohol intervention. *Drug and Alcohol Dependence*, *100*, 248–257.

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Addictive Behaviors

Spicing up the military: Use and effects of synthetic cannabis in substance abusing army personnel ☆

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HIGHLIGHTS

- SC was the most prevalently abused illicit substance at 38% among Army personnel.
- SC users indicated fewer and lower severity depression symptoms.
- SC was the only substance perceived to be used more by soldiers than by civilians.
- SC-using soldiers experienced abuse and dependence problems related to their use.

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ABSTRACT

Synthetic cannabis (SC) use has been increasing within the United States. Due to difficulties with its detection through standard testing, it may be an attractive substance of abuse for military personnel. However, few studies have examined the consequences of its use in this population, including evidence for its potential for abuse and dependence. Participants included 368 active-duty Army personnel who expressed interest in participating in a "check-up" around their alcohol or substance use, of whom 294 (80%) met DSM-IV criteria for substance abuse or dependence (including alcohol, illicit drugs, and prescription medications) and were not engaged in substance abuse treatment. Forty-one participants (11%) reported using SC in the last 90 days. Of those, 27 listed SC as their drug of choice. There were no significant differences in race, ethnicity, deployment history, or religion between SC users and others. Users of SC were generally younger and had less education and income than those who used only alcohol. Among SC users, 12% met criteria for drug abuse and 68% for dependence. Participants perceived SC use to be significantly more prevalent among military personnel than among civilians. Results suggest that SC is prevalent among substance-using soldiers and that DSM-IV criteria for abuse and dependence apply to SC. In addition, results highlight the importance of assessing and treating SC use among active-duty military personnel.

1. Introduction

A 2012 Institute of Medicine report urged the Department of Defense to "acknowledge that the current levels of substance use and misuse among military personnel and their dependents constitute a public health crisis" (p. 6, IOM, 2012). The report also recognized that a new class of synthetic substances including synthetic cannabis (SC) poses unique new challenges for military public health authorities. Synthetic cannabis, also known by the brand names "Spice", "K2" and "Bliss" contains shredded plant material coated with chemicals manufactured to mimic THC—the psychoactive compound in marijuana (Auwärter et al., 2009). The substance remains in a legal gray area that varies across jurisdictions, yet it remains available for purchase online, in the black market, and in some retail establishments where it is labeled as "potpourri" or "incense." Entering the market around 2008, empirical analysis of the drug and its effects is an emerging area of interest across disciplines.

Early in 2011, shortly after recruitment for the present study began, the US Drug Enforcement Administration listed several of the main compounds found in SC as schedule 1 substances, making their production and sale illegal (Harris & Brown, 2013). At the same time, the Board of Pharmacy in Washington State, where the study recruited, took the

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same action to ban SC (Washington State Department of Health, 2010). Then, in 2012, the Synthetic Drug Abuse Prevention Act expanded the list of prohibited compounds used in SC. However, as rapidly as legislation bans specific subsets of the compounds (JWH-018 for example), producers sidestep regulation by synthesizing alternative cannabinoid molecules not listed in existing laws (Hughes & Winstock, 2012). The Federal Analog Act of 1986 was designed to control this process of evasion in response to earlier designer drugs; however, poorly defined standards and a scarcity of case law have weakened its enforceability (Kau, 2008). Though now more difficult to obtain, SC remains available to those who wish to use it.

Qualitative studies have illustrated that a primary reason for its use among college students and the general public is that SC is perceived to be largely undetectable in standard drug screens used by employers and the criminal justice system (Perrone, Helgesen, & Fischer, 2013; Schifano et al., 2009). The difficulty in testing, paired with over-the-counter availability, may understandably make SC an attractive drug for soldiers who want to minimize their risk of detection while still experiencing an intoxication effect similar to marijuana. Observing this trend of SC use among soldiers, the US military issued a ban on SC in each of its branches, with the Army's rule being issued in February of 2011 (DoD, 2011, Vardakou, Pistos, & Spiliopoulou, 2010). Additionally, the Army recently added SC to the random drug urinalysis panel (Army Substance Abuse Program, 2013), the Army's primary method of drug detection. However, it remains difficult to reliably detect SC use. Just as authorities struggle to ban an ever-changing set of compounds, urinalysis producers struggle to develop reliable tests (Gunderson, Haughey, Ait-Daoud, Joshi, & Hart, 2012; Seely, Lapoint, Moran, & Fattore, 2012).

While little is still known about SC and its health consequences, there have been numerous case studies from emergency departments reporting a wide range of adverse effects. These include seizure, convulsion, nausea, vomiting, and cardiovascular and respiratory problems (Forrester, Kleinschmidt, Schwarz, & Young, 2011; Jinwala & Gupta, 2012; Schneir & Baumcacher, 2012; Simmons, Cookman, Kang, & Skinner, 2011). Adverse psychological effects may include anxiety, confusion, agitation, irritability, depressed mood, and memory changes (Bebarta, Ramirez, & Varney, 2012; Castellanos, Singh, Thornton, Avila, & Moreno, 2011; Schneir, Cullen, & Ly, 2011; Seely et al., 2012; Simmons et al., 2011). Synthetic cannabis consumption also may have triggered brief or lasting onset of psychosis (Hurst, Loeffler, & McLay, 2011), with individuals that have histories of mental illness potentially at higher risk (Every-Palmer, 2010).

While these health effects are similar to consequences of marijuana consumption, some evidence suggests that SC is an even stronger agonist of the CB1 and CB2 cannabinoid receptors. Harris and Brown (2013) report that JWH-018, the original compound found in SC, has a four-fold affinity for the CB1 receptor and a ten-fold affinity for CB2 when compared to THC. CB1 affects mood elevation, anxiety and panic, while CB2 affects immune tissue, emesis and inflammatory response. While further analysis is needed, the potential for greater health effects related to this higher potency is noteworthy. Additionally, as producers introduce novel variants, potency and effects will remain uncertain.

Beyond anecdotal evidence suggesting SC is attractive to individuals who undergo routine drug testing and case reports discussing the medical effects on users presenting in emergency departments, little is known about the psychological correlates and consequences of SC use. Nor is it currently known to what extent SC has potential for abuse and dependence. The present study addresses some of these gaps. Further, as drug use among service members is of great concern to the military, and SC has thus far evaded assured detection, this study provides some data on how this drug may be impacting Army personnel.

The Warrior Check-Up (WCU), the parent project of the current study, is a randomized clinical trial of a brief telephone-based motivational enhancement intervention for substance-using US Army soldiers. Employing a check-up model approach (Walker, Roffman, Picciano, & Stephens, 2007), the intervention uses social marketing to attract soldiers who are abusing or dependent upon alcohol or other drugs, but are ambivalent about changing behavior.

Synthetic cannabinoids quickly emerged as a prevalent issue for participating soldiers. Accordingly, protocols and measures were adapted within the first six months of recruitment to include an investigation of their use. The present study uses baseline data from WCU to explore prevalence of use and characteristics of soldiers who are attracted to the drug in terms of demographics, mental health indicators, and use of other substances. Finally, with alcohol we know that perceived social norms of use impact individuals' own drinking behavior. Moreover, normative misperceptions have been an effective point of intervention for populations similar to that of the WCU (Pemberton et al., 2011; Williams, Herman-Stahl, Calvin, Pemberton, & Bradshaw, 2009). Therefore, we were also interested in examining soldiers' perceptions of SC use among relevant referent groups relative to other substances.

2. Methods

2.1. Participants and procedures

Participants included 368 active-duty Army personnel stationed at a large post in the Pacific Northwest who completed a screening assessment for a larger study that included measures of substance use. Of these, 294 met criteria for substance abuse or dependence (including alcohol, illicit drugs, and prescription medications). Eligible callers were invited to participate in a longitudinal trial and complete a more extensive baseline assessment including measures of perceived norms, depression, anxiety and additional demographic data. Eligibility requirements included: abuse or dependence on alcohol, drugs, or prescription medications; active-duty military status; no evidence of psychosis; no current engagement in substance abuse treatment; and no planned deployment to a combat zone within the next seven months.

The enrolled sample (N = 199) included 8.0% women and the racial composition was 57.3% Caucasian, 17.1% African American, and 25.6% who endorsed one or more other categories (i.e., American Indian, Asian, Native Hawaiian, other, or refused). Sixteen percent of participants indicated a Hispanic identity. Most participants (77.6%) had been deployed at least once. Of participants who provided their rank, most were enlisted (93.2%), and 6.8% were commissioned or warrant officers. Nearly half the sample (45.0%) had been in the military for four years or less, 33.3% had served between five and eight years, 11.6% between nine and twelve years, and 10.1% had served more than twelve years.

2.2. Measures

2.2.1. Substance use

The *Customary Drinking and Drug Use Record* (*CDDR*) was developed to assess current (past 3 months) and lifetime use of alcohol and drugs. This measure was adapted to include SC. The CDDR has demonstrated good psychometric properties with young and middle-age adults (Brown et al., 1998).

The *Psychoactive Substance Use Disorders section of the Structured Clinical Interview for DSM-IV* (SCID) served to assess abuse and dependence diagnoses. The SCID was developed to improve inter-rater diagnostic reliability and kappas for substance abuse/dependence disorders typically range from .75 to .84 (First, Spitzer, Gibbon, & Williams, 1997).

The *Short Inventory of Problems* was adapted to assess 22 negative consequences related to substance use. Six military specific items were added to the measure, including, for example, “I had a drop in my Physical Training Score because of drinking or drug use” (Forcehimes, Tonigan, Miller, Kenna, & Baer, 2007).

2.2.2. Mental health

PTSD symptoms were assessed using the *PTSD Checklist—Specific version* (PCL-S). This 17-item questionnaire assesses Criteria B, C, and D of the PTSD construct consistent with the DSM-IV (American Psychiatric Association, 2000). Participants rated how much they were bothered in the past month by each symptom on a 5-point scale ranging from "(1) not at all" to "(5) extremely." The PCL has high correlations (0.92) with the *Clinician Administered PTSD Scale*, the gold-standard diagnostic measure of PTSD. Cronbach's alpha for the PCL-S was found to be high (0.97; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Weathers et al., 1993; Weathers, Litz, Huska, & Keane, 1994).

The Patient Health Questionnaire Module (PHQ-9) is a self-administered version of the PRIME-MD diagnostic instrument for common mental disorders. The PHQ-9 is the depression module, which scores each of the nine DSM-IV criteria as "(0) not at all" to "(3) nearly every day," regarding how often in the last two weeks a participant has experienced each symptom. The internal reliability of the PHQ-9 is excellent (Cronbach's alpha = .86–.89) with good test–retest reliability (r2 = 0.84; Kroenke, Spitzer, & Williams, 2001).

The Generalized Anxiety Disorder (GAD-7), is a 7-item scale for anxiety with the same referent period and response options as the PHQ-9. The measure has shown good test–retest reliability (intraclass correlation = .83), and strong internal consistency (Cronbach's alpha = 0.92). Scores on the GAD-7 are strongly correlated with multiple domains of functional impairment and yield a measure of symptom severity as well as a cut-off score (Kroenke, Spitzer, Williams, Monahan, & Lowe, 2007; Spitzer, Kroenke, Williams, & Lowe, 2006; Swinson, 2006).

2.2.3. Perceived norms

The *Drinking Norms Rating Form* assessed perceived norms with a modified version that asked normative perceptions of alcohol and other drug use behaviors, including SC. Participants were asked to estimate the percentage of individuals within a certain population (soldiers, civilians and matched gender civilians) that had used a specific drug within the last year (Baer, Stacy, & Larimer, 1991).

3. Results

3.1. Prevalence

First, it is important to note that sample size varied by analyses. The largest sample was 368, which included all participants who completed a brief screening. Of these, 199 met eligibility criteria for the larger study and enrolled in the trial, thus completing additional assessments. We used all available data for examining each question. Only those who were enrolled in the larger trial (N = 199) completed questions regarding mental health, perceived norms, and consequences of substance use.

Of the 368 soldiers who completed screening, 346 (94%) reported consuming alcohol and 108 (29%) reported some drug use other than alcohol in the past 90 days. In total, 41 reported past 90 day SC use, representing 11% of all participants and 38% of those reporting any drug use other than alcohol.

Of the 108 participants with recent drug use, 92 indicated a drug of choice 27 of whom listed SC. In comparison, only 13 listed marijuana, 35 listed opioids, and 20 listed another substance (i.e., ecstasy, sedatives, methamphetamine, bath salts). Note: three participants listed two drugs of choice.

3.2. Demographics by substance use

In examining demographic differences, we compared those who reported using SC (N = 41) versus those who used other drugs but not SC (N = 67) versus those who only reported alcohol use (N = 260). For dichotomous and continuous demographic characteristics, two dummy variables were created, one representing alcohol use only and the other drug use only. Linear and logistic regression analyses measured demographic characteristics as a function of these two variables with SC being the reference category. Chi-square tests were performed to examine differences in demographic characteristics with more than two categories (e.g., race and religion). The small proportion of women prevented meaningful comparisons by gender. There were no significant differences in race, ethnicity, deployment history, or religion.

Differences were observed with respect to age, marital status, education, and income. Regarding marital status, chi-square analysis revealed an overall effect as a function of group, χ^2 (n = 366; df = 6) = 16.11, p = .013. Follow-up analyses revealed that SC users were more likely to be single (53%) than other drug users (34%; p = .011) and alcohol only users (33%; p = .049). Comparisons of age indicated that SC users were younger than alcohol users, t (363) = −3.95, p = <.001, but did not differ from other drug users. Users of SC were also more likely to have less education than alcohol only users, t (363) = −2.77, p = .006, but did not differ from other drug users. Finally, SC users reported earning lower income than other drug users, t (360) = −2.35, p = <.019, and alcohol only users, t (360) = −4.25, p = <.001.

A chi-square analysis examining likelihood of using SC as a function of Military Occupation Specialty indicated no overall differences among categories, χ^2 (n = 366; df = 12) = 11.85, p = .458. Relative to those who never used SC, participants who reported having used SC reported fewer years of service than other drug users, t (361) = −2.33, p = .020, and alcohol only users, t (361) = −3.60, p < .001.

3.3. How does SC use relate to mental health variables (PTSD, anxiety and depression)?

Among those who completed mental health measures (N = 199), SC users were compared to other drug users and only alcohol users on three variables. Ten participants elected not to complete the PTSD assessment. No differences were found in PTSD symptoms using the overall PCL score, likelihood of exceeding a threshold of 25, or likelihood of exceeding a score of 28, all p's > .20. Depression analysis indicated that SC users endorsed marginally fewer depression criteria than other drug users, t (196) = 1.80, p = .074, but did not differ from alcohol users. Synthetic cannabis users also showed marginally lower severity of depression symptoms relative to other drug users, t (196) = 1.78, p = .076, but did not differ from alcohol users. Users of SC did not differ in number or severity of anxiety symptoms from either group.

3.4. Consequences of SC versus alcohol and other drugs

Linear regression was used to evaluate lifetime and past 90-day problematic consequences of alcohol and drug use as a function of using drugs other than SC or alcohol relative to SC. Results revealed no differences between SC users and other drug users; however, SC users reported experiencing more problems than alcohol only users on problems ever experienced, t (196) = 1.94, p = .053, as well as problems experienced in the past 90 days, t (196) = 2.85, p < .005.

3.5. Synthetic cannabis and alcohol abuse/dependence

The majority of the larger, screening sample (74.7%) met criteria for either alcohol abuse (19.8%) or alcohol dependence (54.9%). Logistic regression analyses indicated that participants who reported using SC in the past 90 days were no more likely to meet alcohol abuse or dependence criteria relative to other drug users or alcohol only users.

3.5.1. Synthetic cannabis and drug abuse/dependence

Approximately one fifth of the screening sample (22.0%) met criteria for either drug abuse (5.7%) or drug dependence (16.3%). Logistic regression analyses indicated that among participants who reported using drugs other than alcohol (N = 108) SC users did not differ with respect to meeting drug abuse criteria, but were significantly more

Table 1
Proportion of abuse and dependence criteria met for SC users.

DSM IV placement	Criteria	Proportion met
Abuse 1	SC use resulting in failing obligations	58.54%
Abuse 2	SC use resulting in physical hazards	68.29%
Abuse 3	SC use resulting in legal problems	12.20%
Abuse 4	Continued SC use despite resulting interpersonal problems	48.78%
Dependence 1	Increased SC use to get same effect	63.41%
Dependence 2	Withdrawal symptoms	31.82%
Dependence 3	Using more SC or for longer than intended	78.05%
Dependence 4	One or more attempts to cut down	53.66%
Dependence 5	Time spent getting SC or recovering from effects	73.17%
Dependence 6	Used SC instead of hobbies or family/friends	58.54%
Dependence 7	Continued use despite psychological or physical problems	73.17%

likely to meet drug dependence criteria, $OR = 2.50$, χ^2 (n = 108) = 4.86, $p = .027$. Among participants who used SC, 12% met criteria for drug abuse and 68% met criteria for drug dependence. In comparison, among other drug users, 24% met criteria for drug abuse and 46% met criteria for drug dependence. Synthetic cannabis users endorsed an average of 1.87 (SD = 1.25) symptoms of drug abuse and 4.49 (SD = 2.36) symptoms of drug dependence. The proportion of participants who listed SC as their drug of choice who met each abuse and dependence criterion for SC is provided in Table 1.

3.6. Perceived norms

A series of t-tests were conducted to compare participants' perceived norms for active-duty military personnel relative to civilians across nine substances (see Table 2). For seven of the nine substances participants perceived the prevalence of use to be significantly higher among civilians. Synthetic cannabis was the only substance with the opposite pattern. Participants perceived SC use to be significantly more prevalent among military personnel than among civilians. For bath salts, perceived prevalence did not significantly differ between soldiers and civilians.

4. Discussion

The prevalence of SC use, consequences of use, and how SC clinically presents compared to other substances are new territory in research. Synthetic cannabis use among military samples is even less studied. However, SC may be particularly attractive to military personnel given the difficulty inherent in its detection. This study is the first in our awareness to present data regarding SC use among an Army sample who was seeking a brief and low-burden intervention for their alcohol or drug use. All screened participants had used drugs or alcohol in the past 90 days and were active-duty Army personnel. Participants who completed a baseline assessment also met criteria for abuse or dependence on a substance, and this sample in general scored high on measures of psychological distress including PTSD symptoms, depression and anxiety. The study does not include a comparison group of soldiers from the general Army population.

Synthetic cannabis use is prevalent among military personnel struggling with substance abuse. Synthetic cannabis was the most frequently indicated illicit substance reported in this sample (38% of those reporting any drug use). In contrast, only 14% identified marijuana as their drug of choice. Other studies have found lifetime rates of SC use among college students between 8.1% and 14.2%, with one study reporting a 7.1% past-year rate of use (Hu, Primack, Barnett, & Cook, 2011; Stogner & Miller, 2013). Similarly, Johnston, O'Malley, Bachman, and Schulenberg (2013) found a past-year rate of use at 5.0% in a nationally representative sample of adults aged nineteen to twenty-eight. Among the subset of marijuana using university students, lifetime use of SC ranged from 21.0% to 24.3% (Hu et al., 2011; Stogner & Miller, 2013).

This suggests that SC is appealing to military personnel. Routine drug testing may curb marijuana use among soldiers, but inflate use of SC given the pervasive perception that it is immune to detection. Synthetic cannabis use should be assessed among the general active-duty population to further elucidate the prevalence of its use. Two possibilities for doing so would be to include questions on SC in assess-ments like the annual Unit Risk Inventories provided through the Army Substance Abuse Program's Prevention Division or the Health Related Behaviors Survey conducted by the Department of Defense. Similarly, providers working with other populations that are regularly drug tested, such as individuals who are under court supervision, should be aware that SC may be a uniquely attractive substance and that assess-ment of use is encouraged. This is particularly important in the Army where the primary route to treatment is through its random drug test-ing program (IOM, 2012). Still largely undetectable through standard drug screens, SC users are at risk of falling through the net created by the Army to identify and treat problematic substance use.

Interestingly, SC was the only drug that soldiers perceived as being more widely used among Army personnel than civilians. All other substances of abuse were thought to be used less among Army personnel. Although it's unlikely that SC is being used by a third of Army personnel (the belief in this sample), the perception that SC is more popular among soldiers than civilians may very well be accurate. With drugs such as alcohol, higher perceived norms have been cross-sectionally and prospectively associated with increased use (Neighbors, Dillard, Lewis, Bergstrom, & Neil, 2006). Thus, the high perceptions of use among Army personnel may lead some personnel to use more. It's worth considering that misperceptions of novel drugs may be common and unlikely unique to the military (Miller, Boman, & Stogner, 2013). This is an area for future longitudinal research to address questions about directionality of the effects, particularly given that actual rates of SC use in the military are unknown. Normative interventions such as social norms campaigns (e.g., Perkins, Linkenbach, Lewis, & Neighbors, 2010) or individualized normative interventions (e.g., Neighbors, Larimer, & Lewis, 2004) have potential as prevention strategies among soldiers and are included in interventions such as Prime for Life (Daugherty & O'Bryan, 2004) adopted for use by Army Substance Abuse Programs and other military branches.

Findings from the current study suggest that DSM-IV criteria for abuse and dependence apply well to SC. Of the abuse criteria, three out of the four variables were endorsed by at least 48% of users, with the majority of participants who used SC reporting that their use resulted in failing to meet obligations or resulting in physical hazards. Few (12%) SC users reported their use resulted in legal problems. Perhaps this is because SC is a relatively new drug and is difficult to detect.

Table 2
Perceived norms for prevalence of drug use among active-duty military personnel versus civilians.

Drug	ADMP		Civilian		*T*
	Mean (%)	SD	Mean (%)	SD	
SC	29.30	24.30	23.33	21.34	3.19**
MJ	20.99	19.02	49.78	23.31	−18.89***
Cocaine	12.26	15.26	26.78	20.00	−11.63***
Hallucinogen	11.10	14.48	21.60	19.29	−8.45***
Inhalants	12.70	16.76	18.58	18.14	−5.08***
Opiates	19.98	21.88	25.63	21.13	−3.70**
Bathsalts	11.28	14.49	11.34	13.44	−.41
Stimulants	15.33	19.20	26.75	19.97	−7.27***
Sedatives	17.32	19.05	27.53	20.40	−5.65***

Note. t's represent differences in perceptions of ADMP versus Civilians. N's ranged from 161 to 196, depending on missing responses.
*** $p < .001$.
** $p < .01$.

Alternatively, SC may be a substance that lends itself less frequently to behavior that could draw attention from law enforcement.

With regard to dependence criteria, all dependence variables were endorsed by at least 32% of SC users. The experience of withdrawal symptoms was reported the least frequently and using more SC than intended was the most endorsed dependence item (78%). Using despite the experience of psychological or physical problems and spending a lot of time using or recovering from SC were also items endorsed by the majority of SC users. Participants who had used SC were more likely to meet drug dependence criteria than those who had not used SC, but were no more likely to meet alcohol abuse or dependence criteria. Awareness raising about SC and its consequences should occur with professionals working with mental health and substance abuse in the military. These clinicians should assess for SC use and be aware that some soldiers may be experiencing negative consequences related to use or struggling with an inability to quit or cut down.

In this sample, SC users tended to be young, less educated, lower income and more likely to be single. These findings are consistent with the demographic characteristics of civilian SC using samples (Hu et al., 2011; Johnston et al., 2013; Stephens, 2011, Stogner & Miller, 2013). Additionally, those who identified SC as their drug of choice report similar levels of distress on measures of PTSD symptoms, depression and anxiety as those whose drug of abuse is alcohol. Personnel who are abusing drugs other than alcohol or SC report the highest level of psychological distress on these measures. It's important to note that this sample was very high on symptoms of psychological distress.

Overall, SC is a substance that appears to be popular among those in the military, fits the model for a substance of abuse and dependence, and should be included in risk assessments of military personnel. Further research should explore rates of SC use in a general sample of military personnel and how normative perceptions of use may be related to use and problems. Similarly, because SC users reported experiencing adverse consequences associated with their use, interventions such as the Warrior Check-Up (Walton et al., 2013), intended to support military personnel in taking stock of their drug/alcohol experiences and think through their options, should include a focus on the soldier's SC experiences.

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Contributors

Walker, Neighbors, and Walton conceptualized the study design. Walker led the writing of the manuscript and wrote the methods and discussion sections. Neighbors ran all analyses. Authors Walton and Pierce wrote the introduction, conducted the lit review and provided comments, feedback and editing of the manuscript. Authors Mbilinyi, Kaysen, and Roffman provided comments on drafts, participated in the conceptualization of the study and are Co-Is on the parent grant.

Conflict of interest

All other authors declare that they have no conflicts of interest.

References

(IOM) Institute of Medicine (2012). *Substance use disorders in the US armed forces*. Washington, DC: The National Academies Press.

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorder: DSM-IV-TR*. Washington, DC: American Psychiatric Association.

Army Substance Abuse Program (2013). Expansion of synthetic cannabinoids to military urinalysis testing (ALARACT 310/2013). Retrieved from http://acsap.army.mil/Pdf/ALARACT%20310-2013.pdf (on 1/19/14)

Auwärter, V., Dresen, S., Weinmann, W., Müller, M., Pütz, M., & Ferreiros, N. (2009). 'Spice' and other herbal blends: Harmless incense or cannabinoid designer drugs? *Journal of Mass Spectrometry*, *44*(5), 832–837. http://dx.doi.org/10.1002/jms.1558.

Baer, J. S., Stacy, A., & Larimer, E. M. (1991). Biases in the perception of drinking norms among college students. *Journal of Studies on Alcohol*, *52*, 580–586.

Bebarta, V. S., Ramirez, S., & Varney, S. M. (2012). Spice: A new "legal" herbal mixture abused by young active duty military personnel. *Substance Abuse*, *33*, 191–194. http://dx.doi.org/10.1080/08897077.2011.637610.

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD checklist (PCL). *Behaviour Research and Therapy*, *34*(8), 669–673. http://dx.doi.org/10.1016/0005-7967(96)00033-2.

Brown, S. A., Myers, M. G., Lippke, L., Tapert, S. F., Stewart, D. G., & Vik, P. W. (1998). Psychometric evaluation of the Customary Drinking and Drug Use Record (CDDR): A measure of adolescent alcohol and drug involvement. *Journal of Studies on Alcohol*, *59*(4), 427–438.

Castellanos, D., Singh, S., Thornton, G., Avila, M., & Moreno, A. (2011). Synthetic cannabinoid use: A case series of adolescents. *Journal of Adolescent Health*, *49*(4), 347–349. http://dx.doi.org/10.1016/j.jadohealth.2011.08.002.

Daugherty, R., & O'Bryan, T. (2004). *Prime for life participant workbook version 8.0*. Lexington, KY: Prevention Research Institute.

Department of Defense (DOD) (2011, February 10). *Prohibited substances (Spice in variations). Memorandum for distribution. Secretary of the Army*. Washington, DC: John McHugh (Retrieved from: http://ascap.army.mil/Pdf/Sec_ArmyProhibited_Substances-Spice_in_Variations)-Memo.pdf)

Every-Palmer, S. (2010). Warning: Legal synthetic cannabinoid-receptor agonists such as JWH-018 may precipitate psychosis in vulnerable individuals. *Addiction*, *105*, 1859–1861. http://dx.doi.org/10.1111/j.1360-0443.2010.03119.x.

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). *Structured clinical interview for DSM-IV axis I disorders, clinician version (SCID-CV)*. Washington, D.C.: American Psychiatric Press, Inc.

Forcehimes, A. A., Tonigan, J. S., Miller, W. R., Kenna, G. A., & Baer, J. S. (2007). Psychometrics of the drinker inventory of consequences (DrInC). *Addictive Behaviors*, *32*(8), 1699–1704. http://dx.doi.org/10.1016/j.addbeh.2006.11.009.

Forrester, M. B., Kleinschmidt, K., Schwarz, E., & Young, A. (2011). Synthetic cannabinoid exposures reported to Texas poison centers. *Journal of Addictive Diseases*, *30*(4), 351–358. http://dx.doi.org/10.1080/10550887.2011.609807.

Gunderson, E. W., Haughey, H. M., Ait-Daoud, N., Joshi, A. S., & Hart, C. L. (2012). "Spice" and "K2" herbal highs: A case series and systematic review of the clinical effects and biopsychosocial implications of synthetic cannabinoid use in humans. *The American Journal on Addictions*, *00*, 1–7. http://dx.doi.org/10.1111/j.1521-0391.2012.00240.x.

Harris, C. R., & Brown, A. (2013). Synthetic cannabinoid intoxication: A case series and review. *The Journal of Emergency Medicine*, *44*(2), 360–366. http://dx.doi.org/10.1016/j.jemermed.2012.07.061.

Hu, X., Primack, B. A., Barnett, T. E., & Cook, R. L. (2011). College students and use of K2: An emerging drug of abuse in young persons. *Substance Abuse Treatment, Prevention, and Policy*, *6*(16), 1–4. http://dx.doi.org/10.1186/1747-597X-6-16.

Hughes, B., & Winstock, A. R. (2012). Controlling new drugs under marketing regulations. *Addiction*, *107*(11), 1894–1899. http://dx.doi.org/10.1111/j.1360-0443.2011.03620.x.

Hurst, D., Loeffler, G., & McLay, R. (2011). Psychosis associated with synthetic cannabinoid agonists: A case series. *American Journal of Psychiatry*, *168*(10), 1119. http://dx.doi.org/10.1176/appi.ajp.2011.11060869r.

Jinwala, F. N., & Gupta, M. (2012). Synthetic cannabis and respiratory depression. *Journal of Child and Adolescent Psychopharmacology*, *22*(6), 459–462. http://dx.doi.org/10.1089/cap.2011.0122.

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2013). *Monitoring the future national survey results on drug use, 1975–2012: Volume 2, college students and adults ages 19–50*. Ann Arbor: Institute for Social Research, The University of Michigan.

Kau, G. (2008). Flashback to the federal analog act of 1986: Mixing rules and standards in the cauldron. *University of Pennsylvania Law Review*, *156*, 1077–1115.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9. *Journal of General Internal Medicine*, *16*(9), 606–613.

Kroenke, K., Spitzer, R. L., Williams, J. B., Monahan, P. O., & Lowe, B. (2007). Anxiety disorders in primary care: Prevalence, impairment, comorbidity, and detection. *Annals of Internal Medicine*, *146*(5), 317–325. http://dx.doi.org/10.7326/0003-4819-146-5-200703060-00004.

Miller, B. L., Boman, J. H., & Stogner, J. (2013). Examining the measurement of novel drug perceptions: *Salvia divinorum*, gender, and peer substance use. *Substance Use and Misuse*, *48*, 65–72.

Neighbors, C., Dillard, A. J., Lewis, M. A., Bergstrom, R. L., & Neil, T. A. (2006). Normative misperceptions and temporal precedence of perceived norms and drinking. *Journal of Studies on Alcohol*, *67*(2), 290–299.

Neighbors, C., Larimer, M. E., & Lewis, M. A. (2004). Targeting misperceptions of descriptive drinking norms: Efficacy of a computer-delivered personalized normative feedback intervention. *Journal of Consulting and Clinical Psychology*, *72*, 434–447. http://dx.doi.org/10.1037/0022-006X.72.3.434.

Pemberton, M. R., Williams, J., Herman-Stahl, M., Calvin, S. L., Bradshaw, M. R., Bray, R. M., et al. (2011). Evaluation of two web-based alcohol interventions in the US military. *Journal of Studies on Alcohol and Drugs*, *72*, 480–489.

Perkins, H. W., Linkenbach, J. W., Lewis, M. A., & Neighbors, C. (2010). Effectiveness of social norms media marketing in reducing drinking and driving: A statewide campaign. *Addictive Behaviors*, *35*, 866–874. http://dx.doi.org/10.1016/j.addbeh.2010.05.004.

Perrone, D., Helgesen, R. D., & Fischer, R. G. (2013). United States drug prohibition and legal highs: How drug testing may lead cannabis users to Spice. *Drugs: Education, Prevention and Policy*, *20*(3), 216–224. http://dx.doi.org/10.3109/09687637.2012.749392.

Schifano, F., Corazza, O., Deluca, P., Davey, Z., Di Furia, L., Farre', M., et al. (2009). Psychoactive drug or mystical incense? Overview of the online available information on Spice products. *International Journal of Culture and Mental Health*, *2*(2), 137–144. http://dx.doi.org/10.1080/17542860903350888.

Schneir, A. B., & Baumcacher, T. (2012). Convulsions associated with the use of a synthetic cannabinoid product. *Journal of Medical Toxicology*, *8*(1), 62–64. http://dx.doi.org/10.1007/s13181-011-0182-2.

Schneir, A. B., Cullen, J., & Ly, B. T. (2011). Spice girls: Synthetic cannabinoid intoxication. *Journal of Emergency Medicine*, *40*, 296–299. http://dx.doi.org/10.1016/j.jemermed.2010.10.014.

Seely, K. A., Lapoint, J., Moran, J. H., & Fattore, L. (2012). Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. *Progress in Neuro-Ppsychopharmacology & Biological Psychiatry*, *39*, 234–243. http://dx.doi.org/10.1016/j.pnpbp.2012.04.017.

Simmons, J., Cookman, L., Kang, C., & Skinner, C. (2011). Three cases of "spice" exposure. *Clinical Toxicology*, *49*, 431–433. http://dx.doi.org/10.3109/15563650.2011.584316.

Simmons, J. R., Skinner, C. G., Williams, J., Kang, C. S., Schwartz, M. D., & Wills, B. K. (2011). Intoxication from smoking "Spice". *Annals of Emergency Medicine*, *57*(2), 187–188. http://dx.doi.org/10.1016/j.annemergmed.2010.08.039.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092–1097.

Stephens, J. L. (2011). *Synthetic cannabinoid usage among college students: The example of K2 and spice.* 1511461 ((Master's thesis). Retrieved from ProQuest UMI dissertation publishing).

Stogner, J. M., & Miller, B. L. (2013). A spicy kind of high: A profile of synthetic cannabinoid users. *Journal of Substance Use*, *1–7*. http://dx.doi.org/10.3109/14659891.2013.770571 (early online).

Swinson, R. P. (2006). The GAD-7 scale was accurate for diagnosing generalized anxiety disorder. *Evidence Based Medicine*, *11*, 184. http://dx.doi.org/10.1016/j.psychres.2011.01.016.

Vardakou, I., Pistos, C., & Spiliopoulou, C. (2010). Spice drugs as a new trend: Mode of action, identification and legislation. *Toxicology Letters*, *197*(3), 157–162. http://dx.doi.org/10.1016/j.toxlet.2010.06.002.

Walker, D. D., Roffman, R. A., Picciano, J. F., & Stephens, R. S. (2007). The check-up: In-person, computerized, and telephone adaptations of motivational enhancement treatment to elicit voluntary participation by the contemplator. *Substance Abuse Treatment, Prevention, and Policy*, *2*(1), 2–12. http://dx.doi.org/10.1186/1747-597X-2-2.

Walton, T. O., Walker, D. D., Kaysen, D. L., Roffman, R. A., Mbilinyi, L., & Neighbors, C. (2013). Reaching soldiers with untreated substance use disorder: Lessons learned in the development of a marketing campaign for the warrior check-up study. *Substance Use and Misuse*, *43*, 908–921. http://dx.doi.org/10.3109/10826084.2013.797996.

Washington State Department of Health (2010). Synthetic marijuana products to be banned in state under emergency rules: Board of pharmacy action follows federal ban [press release]. Retrieved from. http://www.doh.wa.gov/Portals/1/Documents/1500/NewsReleases/2010/10-210PharmacyBoardK2-Spice-REVISED.pdf

Weathers, F. W., Litz, B. T., Herman, D. S., Keane, T. M., Steinberg, H. R., Huska, J. A., et al. (1993, October). The PTSD checklist (PCL): Reliability, validity, and diagnostic utility. *Paper presented at the annual meeting of the International Society for Traumatic Stress Studies, San Antonio, TX.*

Weathers, F. W., Litz, B. T., Huska, J. A., & Keane, T. M. (1994). *PTSD checklist — Civilian version.* Boston: National Center for PTSD, Behavioral Science Division.

Williams, J., Herman-Stahl, M., Calvin, S. L., Pemberton, M., & Bradshaw, M. (2009). Mediating mechanisms of a military web-based alcohol intervention. *Drug and Alcohol Dependence*, *100*, 248–257. http://dx.doi.org/10.1016/j.drugalcdep.2008.10.007.

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Randomized Trial of Motivational Interviewing Plus Feedback for Soldiers With Untreated Alcohol Abuse

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Randomized Trial of Motivational Interviewing Plus Feedback for Soldiers With Untreated Alcohol Abuse

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Objective: Alcohol use disorders (AUDs) are prevalent in the military and are a major public health concern. Although efficacious AUD interventions exist, few service members seek treatment. Army-specific barriers to AUD treatment include treatment being recorded on health records, command being notified of participation, and perceptions that seeking treatment would interfere with promotion or retention in the military. Evaluate a telephone delivered motivational interviewing plus feedback (MIF) intervention designed to attract self-referral and reduce substance use from active-duty military with untreated AUD. ***Method:*** A randomized controlled trial enrolled 242 Army personnel who met criteria for AUD according to the *Diagnostic and Statistical Manual of Mental* Disorders (4th ed.) and who were not engaged in AUD treatment. Participants were screened and assessed at baseline, 1-week, and 3- and 6-month follow-ups. Participants were randomly assigned to receive 1 session of MIF or psychoeducation (control). All participation occurred over the telephone. Primary outcomes included number of drinks per week, substance use disorder (SUD) diagnosis and consequences, and treatment-seeking behavior. ***Results:*** Generalized linear models were used to test group differences in drinking behaviors and substance use problems. Results indicated that all participants significantly reduced their drinking over time. MIF participants reported significantly fewer drinks per week than did control participants. Similarly, alcohol dependence diagnosis was marginally lower among MIF participants than control participants at the 6-month assessment. SUD treatment seeking significantly increased for both conditions. ***Conclusions:*** This novel adaptation of MIF shows promise for decreasing drinking and alcohol dependence among this high-risk sample of non-treatment-seeking soldiers and may complement existing AUD services already provided by the Army.

What is the public health significance of this article?
The health and well-being of military personnel, and consequently the capacity for optimal functioning of military units, are compromised by the abuse of alcohol and/or other drugs. Stigma and negative career consequences are two major barriers that act to prevent military personnel from voluntarily seeking substance abuse treatment. Efficacious evidence-based prevention and intervention approaches for alcohol and/or drug abuse that can be widely disseminated and decrease barriers to participating voluntarily are clearly needed in the military.

Keywords: military, substance abuse, alcohol, motivational interviewing, personalized feedback

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Prompted by high rates of binge and heavy drinking in the military community, the Institute of Medicine (2012) recently stated that substance misuse constitutes a public health crisis among military families. Stahre, Brewer, Fonseca, and Naimi (2009) used data from the Department of Defense Health Related Behaviors Survey, a national survey of active-duty military, to estimate that 43% of active-duty military were monthly binge drinkers in 2005 (defined as five or more drinks on a single occasion in the past 30 days by men and four for women). Binge-drinking rates among active-duty military personnel increased from 35% in 1998% to 47% in 2008 (Bray, Brown, & Williams, 2013). In 1998, heavy drinking in the military (i.e., weekly binge drinking) mirrored the civilian population at roughly 15%, but since that time rates in the military have risen significantly to 20%, whereas civilian rates stayed the same (14%; Bray et al., 2013; Bray et al., 2009; Mattiko, Olmsted, Brown, & Bray, 2011).

This high level of use is costly to the military. A 2009 economic analysis of Tricare Prime beneficiaries (active-duty military, active-duty family members, and military retirees and their dependents) estimated that alcohol misuse costs the Department of Defense $1.2 billion annually—$425 million in increased medical costs and $745 million in reduced readiness (Harwood, Zhang, Dall, Olaiya, & Fagan, 2009). In its 2014 annual summary, the Armed Forces Health Surveillance Center (2015) reported that substance use disorder accounted for over 46,000 days of inpatient hospitalization, ranking it as the second leading cause of hospitalizations and the Number One cause of lost work time.

Binge drinking and heavy use are associated with a host of other health and psychological consequences among military personnel, including comorbid psychopathology, sexual assault, domestic violence, and medical system expenditure, that also affect the military's readiness (Armed Forces Health Surveillance Center, 2015; Barlas, Higgins, Pflieger, & Diecker, 2013; Department of the Army, 2010, 2012b; Foran, Heyman, Smith Slep, & Snarr, 2012; Marshall et al., 2012; Possemato, Wade, Andersen, & Ouimette, 2010). A recent study found that binge and heavy drinking, as well as alcohol-related problems, were significantly associated with suicide completion among military personnel, whereas combat and deployment factors were not (LeardMann et al., 2013). Alcohol use was involved in 63% of all rapes and sexual assaults in the Army from 2006 to 2011 (Department of the Army, 2012b).

Although efficacious treatments for substance abuse exist (Miller & Wilbourne, 2002), few military personnel are referred for evaluation or treatment, and the majority of those referred do not engage with services (Milliken, Auchterlonie, & Hoge, 2007). For example, of 56,350 active-duty soldiers who completed a post-deployment health assessment, 11.8% (n = 6,669) endorsed alcohol misuse (Milliken et al., 2007). Only .2% (n = 134) of these soldiers were referred for treatment, and only a small proportion (22%, n = 29) thereof were seen within 90 days (Milliken et al., 2007). In 2011, a substantial percentage of soldiers sought counseling for depression (16.1%), anxiety (14.6%), stress management (13.6%), and anger management (9.4%); however, only 1.4% sought help for substance use problems (Barlas et al., 2013). Voluntarily seeking substance abuse treatment is rare among military personnel, likely due to perceived and actual problematic consequences for doing so (Burnett-Zeigler et al., 2011). In addition to treatment barriers that civilians face such as stigma, the need for child care, and having to take time off work, barriers that military personnel face include the added hurdles of having alcohol use disorder (AUD) treatment recorded in their medical record and having Command be notified of treatment participation and progress (Ben-Zeev, Corrigan, Britt, & Langford, 2012; Department of the Army, 2012a; Kim, Thomas, Wilk, Castro, & Hoge, 2010; Pietrzak et al., 2010; Rosen et al., 2011; Wright, Foran, Wood, Eckford, & McGurk, 2012; Zinzow et al., 2013). Many military personnel believe that seeking treatment for substance abuse or mental health would damage their career or result in disciplinary action (Gibbs, Rae Olmsted, Brown, & Clinton-Sherrod, 2011; Hoge et al., 2004). In an independent review of behavioral health services, the Institute of Medicine (2012) urged the Department of Defense to update its AUD prevention and treatment systems by broadening access to outpatient services, increasing the use of technology-assisted interventions, reducing stigma associated with seeking treatment, implementing evidence-based interventions, and evaluating the efficacy of interventions specifically within a military context.

Studies evaluating substance abuse interventions for active-duty military personnel are rare. A recent trial examined the efficacy of two web-based alcohol programs in a convenience sample across military branches (Pemberton et al., 2011). Findings showed that a web-based Drinker's Check-Up (a motivational enhancement therapy that includes personalized feedback) was superior to both a control condition and to the Alcohol Savvy program in drinking reductions (Pemberton et al., 2011). However, follow-up rates were low (35% and 24% for 1- and 6-month follow-ups), and no substance use eligibility criteria for participation were noted. This study suggests web-based interventions are acceptable to military personnel but says less about what works with those who have an existing substance use disorder. A web-based program including personalized feedback and tailored information for drinking has also been shown to be acceptable to Marines, but outcomes of this intervention on drinking were not reported (Simon-Arndt, Hurtado, & Patriarca-Troyk, 2006). In summary, interventions that include personalized feedback show promise for use with active-duty military. Less is known, however, about how to attract voluntary participation by military personnel who are actively struggling with a substance use disorder and what interventions prompt clinically meaningful reductions in use.

The Check-Up model (Walker, Roffman, Picciano, & Stephens, 2007) is tailored for individuals with AUD who are not seeking treatment. Incorporating motivational enhancement therapy or motivational interviewing with personalized feedback, this approach is designed to elicit voluntary participation and increase motivation to change risky behaviors. This brief intervention sidesteps major barriers to participation (e.g., stigma, fear of breach of burden, inconvenience) by providing anonymous services to people who have questions about their drinking but are not in treatment. The Warrior Check-Up project (WCU) adapted this model specifically for use with Army personnel to address a gap in the AUD services continuum by offering an "off the record" opportunity for soldiers who meet AUD criteria to discuss their concerns and consider their options. The objective of the present study was to evaluate the efficacy of WCU, a one-session motivational interviewing plus personalized feedback (MIF) intervention adapted for soldiers, on decreasing substance use and problematic consequences and on increasing treatment engagement

among active-duty Army personnel. A comparison condition received one session of educational information. We hypothesized the following:

Hypothesis 1: MIF would lead to greater decreases in drinking and related consequences than would an education control.

Hypothesis 2: MIF participants would report fewer abuse and dependence diagnoses compared to education participants.

Hypothesis 3: Participants receiving MIF would engage in treatment seeking more than would education participants.

Hypothesis 4: Participants receiving MIF would reduce military-specific consequences more than would education participants.

Method

Design and Eligibility

The Warrior Check-Up study was a randomized controlled trial comparing one session of MIF with one session of education for Army personnel with an AUD. Participants self-referred to the study following exposure to recruitment print media (flyers, posters, and brochures) and in-person outreach (informational booths and presentations at briefings) at a large Army installation in the western United States. Advertisements specific to the military (with images and themes relevant to Army personnel) were created on the basis of feedback from focus groups and collaborators at the base (Walton et al., 2013). Participants were included if they met criteria for alcohol or other drug abuse or dependence according to the *Diagnostic and Statistical Manual of Mental* Disorders (4th ed.; *DSM–IV;* American Psychiatric Association, 1994), were active-duty Army, and were not enrolled in substance use disorder treatment. Soldiers otherwise eligible were excluded if they screened positive for a possible psychotic disorder or had a pending deployment that would prevent completion of follow-up assessments. Although the study included participants with a drug disorder, prevalence was rare (n = 11; 5%). Given the small number of participants reporting a drug use disorder in isolation of alcohol and corresponding low statistical power, analyses focus on drinking outcomes.

Participants provided informed consent. The Institutional Review Board at the University of Washington and the Human Research Protections Office of the Department of Defense approved the study. A certificate of from the National Institutes of Health was obtained. No adverse events related to study procedures occurred.

Recruitment and Participation

Recruitment began in October 2010 and ended in February 2014. During that time, 760 individuals called the study's toll-free number, and 429 (56%) of those callers were members of the target population and completed a screening assessment. Of the 429 screened, 290 met eligibility criteria and 242 (83%) completed the baseline questionnaire, enrolled in the study, and were randomized to receive the MIF intervention (n = 120) or education/control (n = 122). Primarily, participants who were eligible for the study but did not enroll (44 of 48 participants) failed to complete the baseline assessment within 10 days of the screening. Common reasons for ineligibility included no current AUD (n = 63; 45.3%), impending deployment in the next 7 months (n = 32; 23.0%), currently in substance abuse treatment (n = 32; 23.0%), not currently serving in the military (n = 4; 2.9%), and positive psychosis screen (n = 2; 1.4%). Of the 760 individuals who inquired, 331 (43.6%) were friends or family of a service member, social service providers, or news organizations wanting to know more about what we were offering. Data collection continued until August 2014.

Participants were compensated for participating in research interviews upon completion of baseline ($25) and 1-week ($25) and 3- and 6-month follow-ups ($50), with a bonus payment ($25) for completing all research interviews. Assessments were administered via telephone by trained assessors blind to treatment condition.

Table 1 provides a description of the enrolled sample by condition. Participants were largely male (92%), Caucasian (60%), married (57%), and lower ranking enlisted (E1–E4; 57%), with an average age of 28 years. A series of chi-square and difference-of-means tests indicated no significant difference between randomized groups with regard to baseline descriptors. The sample contained a significantly greater proportion of men and lower ranking enlisted soldiers compared to the overall Army population, but this was expected due to the higher rates of substance use among these demographic groups (Barlas et al., 2013; Department of Defense, 2014).

Sample Size, Power, and Precision

Sample size was predetermined on the basis of power analyses suggesting an initial sample of 240 with 83% retention would yield adequate power to detect small to medium intervention effects (f^2 = .02–.15) on univariate outcomes (Cohen, 1992). We estimated .80 power to detect 4% change in posttreatment outcome variance attributed to the intervention. Two individuals who had completed screening and were pending baseline assessment when the target sample size was reached were permitted to enroll, thus bringing the final sample size to 242.

Randomization

Following completion of the baseline assessment, participants were computer-randomized in equal proportion to treatment and control groups according to two blocking variables: gender and severity of substance use disorder (abuse vs. dependence). The project director or clinicians processed randomization and informed participants of the condition to which they were randomly assigned, leaving assessors to conduct interviews blind to condition. Consent materials explained to participants that they would be randomized to receive one of two conditions, both of which were described, but no indication was made regarding which was the experimental condition.

Measures and Covariates

All primary outcome measures were completed at screening or baseline and were repeated at both the 3- and 6-month follow-ups.

Table 1
Demographic and Alcohol use Descriptors of the Total Sample and Comparison by Condition

Characteristic	Total sample (n = 242)	Treatment condition: MIF (n = 122)	Treatment condition: Control (n = 122)	Test of difference: t	Test of difference: χ^2	Test of difference: p
Age in years: *M* (*SD*)	28.0 (6.3)	28.2 (6.5)	27.7 (6.1)	.649		.517
Male: *n* (%)	223 (92)	110 (92)	113 (93)		.076	.815
Hispanic: *n* (%)	44 (18)	18 (15)	26 (21)		1.62	.244
Non-White: *n* (%)	96 (40)	43 (36)	53 (44)		1.47	.140
Married: *n* (%)	138 (57)	67 (56)	71 (58)		.138	.405
Years of military service: *n* (%)					2.00	.572
1 to 4 years	111 (46)	51 (42)	60 (49)			
5 to 8 years	77 (32)	40 (34)	37 (30)			
More than 8 years	53 (22)	28 (24)	25 (20)			
Any OIF/OEF deployments: *n* (%)	180 (74)	90 (75)	90 (74)		.048	.883
OIF/OEF deployments: *M* (*SD*)	1.24 (1.1)	1.3 (1.1)	1.2 (1.1)	−.324		.746
Pay grade: *n* (%)					1.31	.518
Lower enlisted (E1–E4)	137 (57)	64 (53)	73 (60)			
Upper enlisted (>E5)	88 (36)	48 (40)	40 (33)			
Officer	16 (7)	8 (7)	8 (7)			
Alcohol use disorder: *n* (%)					.127	.939
Abuse	31 (13)	15 (13)	16 (13)			
Dependence	200 (83)	99 (83)	101 (83)			
Neither	11 (5)	6 (5)	5 (4)			
Drinks per week: *M* (*SD*)						
Baseline	30.6 (23.2)	32.3 (24.2)	29.0 (22.2)	−1.09		.277
3-month follow-up	18.3 (19.9)	17.4 (21.0)	19.1 (18.8)	.61		.542
6-month follow-up	15.4 (17.3)	14.2 (16.7)	16.6 (17.9)	.96		.339
Drinking frequency: *M* (*SD*)						
Baseline	4.3 (2.2)	4.5 (2.2)	4.2 (2.1)	−.99		.324
3-month follow-up	2.9 (2.4)	2.8 (2.5)	3.1 (2.4)	1.01		.312
6-month follow-up	2.7 (2.4)	2.6 (2.4)	2.8 (2.4)	.57		.571
No. of heavy drinking episodes: *M* (*SD*)						
Baseline	2.2 (2.0)	2.2 (2.1)	2.2 (2.0)	.08		.937
3-month follow-up	1.3 (1.8)	1.2 (1.8)	1.4 (1.8)	.62		.538
6-month follow-up	1.1 (1.6)	1.0 (1.5)	1.3 (1.8)	1.27		.206

Note. MIF = motivational interviewing plus personalized feedback; OIF/OEF = Operation Iraqi Freedom or Operation Enduring Freedom.

Trained interviewers administered all assessments by telephone. On a monthly basis, a coinvestigator reviewed a selection of audio-recorded interviews to ensure quality and consistent adherence to protocol.

Alcohol consumption. Alcohol use (i.e., number of drinks per week, general drinking frequency, and frequency of heavy drinking episodes [HDEs]) was assessed with the Daily Drinking Questionnaire (DDQ; Baer, Kivlahan, Blume, McKnight, & Marlatt, 2001; Collins, Parks, & Marlatt, 1985; Kivlahan, Marlatt, Fromme, Coppel, & Williams, 1990), which asked participants to estimate the number of drinks they consumed on each day of a typical week during the past month. Responses for each day of the week are summed to provide a score for the average number of drinks consumed per week. The DDQ also assessed drinking frequency. Participants were asked, "How often have you consumed alcohol during the past 30 days?" and responded accordingly (0 = *Never*, 1 = *Once a month*, 2 = *2 times a month*, 3 = *3 times a month*, 4 = *Once a week*, 5 = *Twice a week*, 6 = *3 times a week*, 7 = *4 times a week*, 8 = *5 times a week*, 9 = *6 times a week*, 10 = *Every day*). Responses were recoded to represent the number of days an individual reported drinking per week. Finally, the DDQ assessed frequency of HDEs (i.e., four-plus drinks in one sitting for women and five-plus for men) in the past month. Frequency of HDEs was recoded to be on a metric consistent with drinking frequency: the number of days per week participants reported HDEs in the past month.

Substance use disorder. The Psychoactive Substance Use Disorder section of the Structured Clinical Interview for *DSM–IV* (SCID; First, Spitzer, Gibbon, & Williams, 2002), assessing past 90-day alcohol and drug use behaviors separately, was administered at each time point. Developed to increase interrater reliability, the SCID assessed both abuse and dependence on alcohol and other drugs. Kappas for substance abuse or dependence disorders have typically ranged from .75 to .84.

Consequences of substance use. The 15-item Short Inventory of Problems (Forcehimes, Tonigan, Miller, Kenna, & Baer, 2007) was used to assess consequences of substance use. Participants were asked to report whether each consequence happened *Never, Yes, in lifetime—Not in the past 90 days,* or *Yes, in the past 90 days.* Participants received a 0 for each item if they did not report a consequence in the past 90 days and a 1 for each item they experienced in the past 90 days. This measure was amended to include six additional items assessing military-specific consequences of substance use (e.g., substance use causing a drop in physical training score or interfering with promotion). Military-specific items were developed in collaboration with behavioral health providers at the study's target site. A total score was calculated as the sum of all 21 items (α = .87). The individual

subscales included physical (α = .69), interpersonal (α = .63), intrapersonal (α = .75), impulse (α = .59), social responsibility (α = .74), and military-specific (α = .60).

Treatment-seeking behaviors. A brief eight-item measure was adapted (Mbilinyi et al., 2011) for this study to assess treatment-seeking behaviors such as attending a treatment session, calling a treatment program to get more information, attending a 12-step fellowship meeting, or discussing substance use concerns with a military chaplain.

Intervention

All intervention sessions were personalized and delivered individually to study participants via telephone. Military policies required participants to complete all study activities, including receipt of the intervention, during their off-duty hours. Counselors also asked participants to find a private and solitary location in which to complete the session. Participants could schedule the session at times between 8 a.m. and 8 p.m. on weekdays. They did not receive any incentives for completing the intervention session.

Counselor training and supervision. Both intervention conditions were delivered via telephone by one of four master's-level clinicians who received weekly supervision from the study's clinical director, an experienced motivational interviewing trainer. Counselor training included (a) the study of motivational interviewing (MI), current research on alcohol and drugs and their effects on the body, training on human subject protection in research, and review of the study protocols and intervention manual; (b) attendance at a 2-day intensive workshop on motivational interviewing led by the principal investigator and clinical director; (c) completion of two mock sessions with study staff and ineligible participants (audio-recorded, reviewed by the clinical director with feedback provided); and (d) attendance at weekly supervision in which all sessions were reviewed by the clinical director. Feedback was provided that included provision of counselor behavior counts of key MI behaviors including reflections (parsed by simple and complex), open- and closed-ended questions, and affirmations.

Experimental condition—motivational interviewing with feedback (MIF). Incorporating input from three focus groups (non-treatment-seeking soldiers, treatment-seeking soldiers, and military behavioral health providers) and collaborators from the Army Substance Abuse Program at the recruitment site, MIF was adapted for use with Army personnel. It included one 60-min telephone-delivered session. A personalized feedback report comprised of information on behaviors, attitudes, and beliefs as reported in their screening and baseline assessments was created for all participants. Prior to the session, participants chose to receive their personal feedback report via e-mail or mail. The counselor used motivational interviewing skills throughout the session and reviewed the personal feedback report with the participant. Feedback domains included normative perceptions of substance use (military and civilian norms), summaries of alcohol and drug use, consequences of use, risk factors (e.g., family history, tolerance to alcohol and/or other drug use), posttraumatic stress disorder (PTSD) symptoms, and life goals. Military-specific adaptations of personalized feedback included the provision of military and civilian substance use norms, military-specific consequences of substance use, and PTSD symptoms (with the counselor specifically asking what, if any, the relationship was between military experiences and stress and substance use). The session was intended to facilitate the participants' candid exploration of their drinking or drug use including the costs/benefits, comparison of their use patterns with those of other soldiers and civilians, and how their use was impacting their goals and values.

Comparison condition—education. The comparison condition was matched for dose (one session; 45–60 min) and delivery (via telephone) and included educational information on alcohol and other drugs using a didactic style. Educational information about alcohol and other drugs, on the basis of current research, was sent by e-mail or mail to participants prior to their session. Although all participants received generic information on alcohol and blood alcohol concentration, participants chose one or two additional modules on the basis of their interests. Optional module topics included marijuana, synthetic marijuana, stimulants, opiates/Rx medications, cocaine, inhalants, hallucinogens, and "bath salts." Because the intervention's focus was to provide information, participants were not asked about or encouraged to discuss their personal use; rather, factual information on the effects and consequences of the drugs themselves was delivered.

Results

Participant Flow

Figure 1 shows the number of participants who completed each phase of the study. The majority of participants in both the MIF (79.2%) and education (86.9%) conditions completed the telephone-delivered intervention session. Completion rates for follow-up sessions were similarly high, with over 86.7% of participants completing the 3-month follow-up and 81.4% completing the 6-month follow-up. Two participants explicitly declined further participation during the course of the study, and one participant died by suicide prior to receiving the intervention.

Treatment Fidelity

Intervention sessions were recorded when participants permitted it (73%). Twenty-five percent of MIF sessions (n = 24) and 10% of the education sessions (n = 12) were randomly selected to be rated by two independent assessors for treatment fidelity using the Motivational Interviewing Treatment Integrity 3.1.1 coding system (Moyers, Martin, Catley, Harris, & Ahluwalia, 2003; Moyers, Martin, Manuel, Miller, & Ernst, 2010). The majority of the interrater reliability estimates (Intraclass Correlation Coefficients [ICCs]) for global measures (e.g., MI Spirit, Empathy) were in the excellent range (.86–.95). ICCs for Direction and Autonomy Support were good (.65) and fair (.49), respectively. Average clinician behavior count summary scores including Spirit, Reflection to Question Ratio, Percent Open Questions, Percent Complex Reflections, and Percent MI Adherent for the MIF sessions reached competency thresholds described in the MITI 3.1.1 manual. Average fidelity ratings were high, indicating strong adherence to motivational interviewing skills for MIF sessions. Conversely, and as intended, none of the average clinician summary scores for the education condition reached MITI competency thresholds. All of these categories were also significantly different between conditions with the exception of Percent Complex Reflections and Percent MI Adherent categories. Although the Percent Complex Reflection category was not different between conditions, the frequency

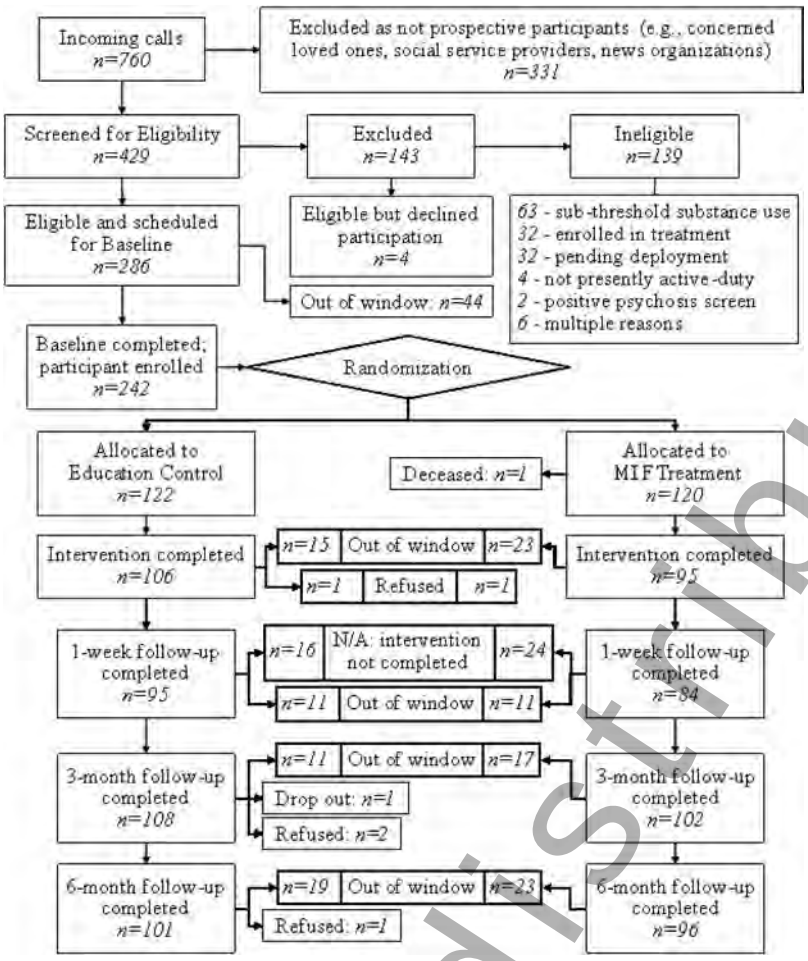

Figure 1. MIF = motivational interviewing plus personalized feedback.

of both simple (MIF, $M = 8.29$; education, $M = .917$) and complex reflections (MIF, $M = 15.70$; education, $M = .667$) and Percent MI Adherent (MIF, $M = 2.75$; education, $M = 1.33$) were significantly different by condition. Taken together, coding results suggest MIF was delivered with fidelity and was different from the education condition.

Data Analysis

Primary outcomes included (a) alcohol consumption, which consisted of three outcomes: the number of drinks per week, drinking frequency (number of days consuming alcohol per week), and frequency of heavy drinking episodes (number of times wherein participants drank four-plus drinks in one sitting per week for women and five-plus for men); (b) abuse and dependence criteria for alcohol; (c) substance use consequences; and (d) treatment-seeking behaviors for substance use.

Analyses examining changes in outcomes over time were conducted using general estimating equations (GEEs; Hardin & Hilbe, 2012). Analyses were conducted using either SPSS Version 21 or SAS Version 9.4. Distributions for alcohol consumption and related consequences were specified as negative binomial. Meeting abuse and dependence criteria and engagement in treatment seeking were binary. An alpha level of .05 was adopted for all analyses. For each outcome, we first examined changes over time across all three time points for all participants. For example, drinks per week was examined as a function of time (coded 0, 1, and 2). Next, treatment effects were evaluated, with follow-up outcomes examined as a function of time and treatment, controlling for baseline values of the outcome. This analysis provides a test of differences between the intervention and control group during follow-up including both the 3- and 6-month assessments. Time × Treatment Condition interactions were examined in a subsequent step. For example, in Step 1, follow-up drinks per week was examined as a function of time (dummy-coded to represent Time 2 or Time 3) and condition. The Time × Treatment Condition interaction was added at Step 2. Thus, the main effect of treatment provides a test of differences between the intervention and control groups during follow-up including both the 3- and 6-month assessments. The test of the interaction at Step 2 provides a test of whether differences between the intervention and control group were larger at the 3-month assessment relative to the 6-month assessment.

Selection and Attrition

Missing data were due primarily to attrition. Of the 242 participants, 190 (78.5%) completed both the 3- and 6-month follow-up assessments; 28 (11.57%) completed only one follow-up, and 24

(9.92%) completed neither follow-up. A dichotomous outcome indicating whether participants had failed to complete either or both follow-up assessments was examined as a function of baseline indicators in a series of logistic regression analyses. None of the baseline indicators were significantly associated with dropout with the exception that those who were drug-dependent were more likely to drop out ($N = 19$ out of 49; 39%) compared with those who were not drug-dependent ($N = 160$ out of 193; 17%). On the basis of intention to treat, analyses included all available data. GEE is a flexible technique that allows for treatment of missing data in examining correlated outcomes. GEE was selected in part because of its ability to accommodate missing data. The SAS GENMOD procedure was used to estimate the working correlation from data containing dropouts by using the all available pairs method, in which all nonmissing pairs of data were used in the moment estimators of the working correlation parameters.

Primary Outcomes

Alcohol use. Descriptive statistics for number of drinks per week, drinking frequency, and frequency of heavy drinking episodes are reported by condition for all time points in Table 1. Note that comparisons between means at follow-up do not account for baseline levels and are thus not comparable to formal tests of the intervention. Treatment effects are reported in Table 2 for all outcomes, along with estimates of effect size (Cohen's *d*). Examination of changes in alcohol use across all participants revealed a significant reduction over the three time periods in number of drinks consumed per week ($z = -9.48$, $d = 1.22$, $p < .001$), in frequency of drinking ($z = -6.18$, $d = -.79$, $p < .001$), and in frequency of heavy drinking episodes ($z = -6.74$, $d = -.87$, $p < .001$). Treatment effects revealed that MIF participants reported fewer drinks per week and marginally fewer heavy drinking episodes at follow-up relative to control. The treatment effect on overall drinking frequency was not significant. Reductions did not differ between 3- and 6-month follow-ups for any alcohol use outcome.

Abuse and dependence criteria. The proportions of participants meeting *DSM–IV* criteria for abuse and dependence of alcohol at baseline are presented in Table 1. The percentage of participants meeting criteria for alcohol abuse over time (baseline and 3- and 6-month follow-up) was, respectively, 13.1%, 7.5%, and 7.8% for the education group and 12.5%, 10.8%, and 12.5% for the MIF group. The percentage of participants meeting criteria for alcohol dependence over time (baseline and 3- and 6-month follow-up) was, respectively, 82.8%, 41.1%, and 35% for the education group and 82.5%, 33.3%, and 21.9% for the MIF group. The proportion of participants meeting criteria for alcohol dependence ($z = -8.90$, $d = -1.14$, $p < .001$) decreased over time. All treatment effects and the Time × Treatment Condition interaction tests for alcohol abuse and dependence are presented in Table 2. There was a marginally significant treatment effect on alcohol dependence criteria, such that fewer participants in the intervention group met criteria at follow-up relative to the control group, controlling for baseline ($z = -1.94$, $d = -.25$, $p = .052$). The proportion of participants meeting criteria for alcohol abuse did not change over time ($z = -.98$, $d = -.13$, $p = .326$). Examination of treatment differences at follow-up, controlling for baseline, revealed no effects for alcohol abuse. Treatment effects were not different between 3 and 6 months.

Table 2
Intervention Effects on Alcohol Use

Outcome and predictors	β	*z*	*p*	*d*
Drinks per week				
Intercept	2.113	21.94	<.001	2.82
Baseline covariate	.023	13.42	<.001	1.73
Time	−.104	−1.57	.116	−.20
Treatment	−.217	−2.07	.038	−.27
Time × Treatment Condition	.016	.12	.902	.00
Drinking frequency				
Intercept	.215	1.48	.138	.19
Baseline covariate	.192	7.57	<.001	.97
Time	−.059	−1.01	.312	−.13
Treatment	−.152	−1.60	.110	−.21
Time × Treatment Condition	.019	.16	.872	.02
Frequency of heavy drinking episodes				
Intercept	−.409	−2.97	.003	.38
Baseline covariate	.266	9.33	<.001	1.20
Time	−.115	−1.00	.317	.13
Treatment	−.243	−1.75	.080	.23
Time × Treatment Condition	−.239	−1.04	.299	.13
Alcohol abuse				
Intercept	−2.771	−7.84	<.001	−1.01
Baseline covariate	1.130	2.54	.011	.33
Time	.111	.34	.733	.04
Treatment	.510	1.40	.163	.18
Time × Treatment Condition	.139	.21	.832	.03
Alcohol dependence				
Intercept	−1.631	−3.89	<.001	−.50
Baseline covariate	1.543	3.65	<.001	.47
Time	−.392	−2.35	.019	−.30
Treatment	−.498	−1.94	.052	−.25
Time × Treatment Condition	−.337	−1.01	.312	−.13

Note. Main effects come from a model including only main effects; two-way interactions come from a model including main effects and the two-way interaction. Time × Treatment Condition interactions reflect a test of treatment effects at 3-month versus 6-month follow-up.

Substance use consequences. Table 3 presents rates of endorsement of substance use consequences for the overall sample and by group at all time points. Examination of consequences over time showed reductions in the total consequences score over the 6-month period ($z = 3.89$, $d = -.50$, $p < .001$). Additionally, examination of specific consequences over time showed that among physical, interpersonal, intrapersonal, impulse, and social responsibility consequences, there was significant improvement across the entire sample. Results, including treatment effects for the total consequences measure as well as specific subscales, are presented in Table 4. Overall, changes in total scores were not different by treatment condition. However, upon examining specific consequence categories, a significant treatment effect for military-specific consequences indicated that participants assigned to the treatment condition reported lower military-specific consequences at follow-up relative to control participants. There was also a significant Group × Time interaction for social responsibility consequences favoring the control group.

Treatment-seeking. Table 5 presents the proportion of participants engaging in treatment seeking over time by condition. Although the proportion of participants who reported engaging in treatment-seeking behavior increased over time ($z = 2.44$, $d = .31$,

Table 3
Descriptive Statistics for Substance Use Consequences by Group and Time Point

Consequence	Overall sample			Baseline		3-month follow-up		6-month follow-up	
	Baseline (n = 242)	3-month follow-up (n = 209)	6-month follow-up (n = 182)	MIF (n = 120)	Control (n = 122)	MIF (n = 102)	Control (n = 107)	MIF (n = 90)	Control (n = 92)
Total	5.17 (4.53)	4.49 (4.99)	3.62 (4.37)	5.18 (4.60)	5.15 (4.47)	3.96 (4.58)	4.99 (5.32)	3.21 (4.02)	4.01 (4.67)
Military-specific	.40 (.80)	.48 (.84)	.38 (.88)	.39 (.80)	.41 (.80)	.34 (.71)	.61 (.93)	.23 (.48)	.53 (1.13)
Physical	.94 (1.07)	.79 (1.07)	.63 (.95)	.91 (1.06)	.96 (1.09)	.75 (1.05)	.84 (1.10)	.56 (.90)	.71 (1.00)
Interpersonal	.57 (.89)	.57 (.95)	.41 (.82)	.61 (.90)	.52 (.88)	.55 (.91)	.60 (.99)	.39 (.74)	.43 (.89)
Intrapersonal	1.21 (1.19)	.94 (1.22)	.75 (1.09)	1.20 (1.19)	1.23 (1.19)	.89 (1.17)	.99 (1.27)	.63 (1.01)	.86 (1.16)
Impulse	1.07 (.99)	.93 (.95)	.79 (.92)	1.04 (1.01)	1.09 (.97)	.83 (.98)	1.02 (.92)	.70 (.88)	.87 (.96)
Social responsibility	.99 (1.14)	.77 (1.07)	.65 (1.02)	1.04 (1.20)	.93 (1.08)	.60 (.93)	.93 (1.18)	.70 (1.06)	.61 (.98)

Note. Values presented are means, with standard deviations in parentheses. MIF = motivational interviewing plus personalized feedback.

p = .015), there were no intervention effects on treatment seeking (z = −.06, d = −.01, p = .949).

Discussion

Findings from this study support the efficacy of a brief, telephone-delivered MIF intervention for untreated soldiers with an AUD. Notably, this style of outreach for a low-burden and phone-based service was able to attract active-duty Army personnel with AUD to volunteer. Of individuals who were screened for enrollment and found to be eligible, 83% enrolled in the study, with intervention session completion rates of 79% (MIF) and 87% (control) suggesting high acceptability of the intervention. Moreover, most met criteria for substance dependence yet were not accessing treatment services, suggesting this type of intervention bridges a gap in services. Although brief alcohol interventions have been evaluated for veterans, little work has focused on active-duty military (McDevitt-Murphy et al., 2014). Substance abuse is typically identified through screening (in primary care) and then offered to at-risk individuals (Cucciare & Ghaus, 2012). Recent research has suggested that when postdeployment assessments were completed by active-duty personnel, a minority of those at risk (29% of at-risk drinkers) were referred to further services (Larson, Mohr, Adams, Wooten, & Williams, 2014), suggesting that identification and referral strategies miss the majority of those who may benefit from intervention. The WCU is unique in its focus on eliciting self-referral among active-duty soldiers.

Consistent with our hypothesis, the participants randomized to the MIF intervention reduced their drinking more than did participants in the education condition. These reductions in drinking were clinically significant. The level of drinking was reduced from 32 drinks per week among MIF participants to 14 drinks per week by the 6-month follow-up, which is within the National Institute on Alcohol Abuse and Alcoholism's (2015) low-risk alcohol use guideline. Both groups had lower likelihood of alcohol dependence diagnosis over time; however, MIF participants reduced dependence diagnosis to a greater degree than did control participants by the 6-month follow-up. Specifically, at baseline, 83% of MIF participants met criteria for alcohol dependence, but only 22% met these criteria by the 6-month follow-up. Among education participants, rates of alcohol dependence at baseline and 6-month follow-up were 83% and 35%, respectively. These between-groups effects were small but significant and may have been attributed to the active comparison condition. Findings are consistent with recent research on Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) veterans that found brief alcohol interventions with personalized feedback to be effective for decreasing alcohol use (McDevitt-Murphy et al., 2014). Our findings suggest that a brief, one-session, telephone-based interview can lead to clinically meaningful improvements in drinking that are maintained 6 months following intervention. This mode of delivery may be easier to disseminate than lengthier in-person interventions.

It is important to note that the intervention had a differential effect on improving military-specific consequences. The intervention was specifically adapted to address a military context and to build buy-in from participants to identify ways in which their substance use may affect consequences generally, as well as their functioning within a military setting. Findings suggest that adaptations for military culture may have been particularly effective in helping soldiers change use that was harmful to their work functioning.

In contrast to our prediction, participants in both conditions significantly increased treatment seeking over time, with no significant between-groups differences observed. Perhaps for people taking a first step toward making a change, education may be enough to set the ball rolling. Check-up studies with different populations have also failed to find that MIF differentially increases treatment seeking (Walker et al., 2011) or have indicated small effects (Mbilinyi et al., 2011).

One study limitation was use of incentives for completing research assessments. Payments for participating in the assessments likely enhanced intervention participation rates. However, use of rewards to promote health behaviors is increasing (Mattke et al., 2013) among employers and health insurance companies and is recommended as one mechanism to increase workforce health (U.S. Department of Labor, 2014). Incentives such as cash, gift cards, raffles, or reduced premium costs are offered by 36% of U.S. employers with more than 200 workers (Claxton et al., 2014). Rewards have been proposed specifically for military populations due to the military's existing use of incentives to maintain individuals in specialized positions (Naito & Higgins, 2012). Future research should investigate the level of participation in the intervention without incentives, the effect of incentives on willingness to participate in the intervention, and the potential costs of incentives versus benefits.

Table 4
Intervention Effects on Substance Use Consequences

Outcome and predictors	β	*z*	*p*	*d*
Total				
Intercept	.826	6.16	<.001	.79
Baseline covariate	.123	9.01	<.001	1.16
Time	−.176	−1.33	.185	−.17
Treatment	−.191	−2.11	.035	−.27
Time × Treatment Condition	−.066	−.36	.718	−.05
Military-specific				
Intercept	−.743	−4.76	<.001	−.61
Baseline covariate	.556	6.05	<.001	.78
Time	−.692	−3.39	<.001	−.44
Treatment	−.226	−1.27	.205	−.16
Time × Treatment Condition	−.202	−.57	.568	−.07
Physical				
Intercept	−.894	−6.05	<.001	−.78
Baseline covariate	.573	9.12	<.001	1.17
Time	−.132	−.90	.369	−.12
Treatment	−.199	−1.96	.050	−.25
Time × Treatment Condition	−.157	−.76	.445	−.10
Interpersonal				
Intercept	−.975	−5.38	<.001	−.69
Baseline covariate	.620	7.74	<.001	1.00
Time	−.142	−.73	.551	−.09
Treatment	−.388	−2.58	.010	−.33
Time × Treatment Condition	−.047	−.16	.877	−.02
Intrapersonal				
Intercept	−.841	−4.84	<.001	−.62
Baseline covariate	.532	8.37	<.001	1.08
Time	−.156	−1.07	.286	−.14
Treatment	−.176	−1.68	.092	−.22
Time × Treatment Condition	−.173	−.80	.421	−.10
Impulse				
Intercept	−.392	−3.01	.003	−.39
Baseline covariate	.328	5.16	<.001	.66
Time	−.166	−1.32	.187	−.17
Treatment	−.159	−2.05	.040	−.26
Time × Treatment Condition	−.048	−.30	.763	.04
Social responsibility				
Intercept	−.893	−5.52	<.001	−.71
Baseline covariate	.577	8.62	<.001	1.11
Time	−.249	−1.54	.124	−.20
Treatment	−.142	−1.36	.175	−.17
Time × Treatment Condition	.527	2.53	.011	.33

Note. Main effects come from a model including only main effects, two-way interactions come from a model including main effects and the two-way interaction.

Additional limitations of the current research are that the design lacked a no-treatment control group and the differential dropout rates on the basis of drug dependence. It is also possible that results were influenced by regression toward the mean. This confound is at least partially refuted by the between-groups differences reported on some of the main substance use behaviors. Because the assessments were substantial, it may be possible that the assessment itself and the attention received from research staff contributed to improvements across both conditions. Future research is needed to evaluate whether the lengthy assessment has an unintended therapeutic effect. Although the research team considered a no-treatment condition as an option, ultimately it was deemed unethical to deny services, especially given that MIF interventions have already been found effective with other populations. Given that our outcomes were significantly correlated and because we did not have a no-treatment control, we did not adjust for multiple comparison tests. Furthermore, the possible effect of treatment received over the course of the follow-up period was not taken into account. Finally, the reliability for military-specific consequences was somewhat low, potentially resulting in underestimated effects.

Although the recruited sample was broadly similar to Army demographics, it is possible that findings may not generalize to other branches of military service, veterans, or civilian populations. Cell sizes were too small to examine whether the findings differed on the basis of gender, race or ethnicity, or military rank. The sample was largely male, and although this is generally representative of the military, it may nevertheless limit generalizability to women. The intervention was specifically tailored for the Army through the use of military-specific norms, the addition of a section on PTSD symptoms, and an emphasis on military-specific consequences of substance use. These changes may have increased our outcomes but also limit generalizability to other populations. Future research should examine the extent to which specific norms are necessary in MIF interventions to maximize effects within a population, while not unnecessarily limiting generalizability.

The results from this study are promising and highlight a potential avenue for development of further programs within the military to address substance misuse. The inclusion of a personalized feedback report adds certain advantages such as providing a prompt for clinicians to discuss a patient's alcohol use from various angles and making it easier for a clinician to cover all relevant material. Mailed or electronic feedback may serve as a modest intervention by itself, even without follow-up from a clinician. At the same time, there are numerous issues to consider in the implementation, or scaling up, of such a program. For example, the quality and frequency of clinical supervision and monitoring used in this study would be difficult to implement within a standard military clinical setting. Time spent in clinical supervision is not reimbursable time, and busy clinics are often unable to set aside that amount of time for their clinicians on a weekly basis. Monitoring fidelity to interventions can be difficult because providers are often reluctant to tape intervention sessions, service members may not wish to have sessions taped due to concerns and coding sessions is both time consuming and expensive. More-over, there can be a considerable lag between when a session occurs and when the therapist receives feedback on fidelity. All of this can make it harder for clinicians to improve their skills in delivering a treatment such as the MIF in a standard military clinical setting. One option is to consider a centralized system to deliver care, where specialized providers can be monitored more closely in delivering an intervention. This may be a more cost-effective means of scaling up provision of specialized mental health care. Telehealth interventions such as the Warrior Check-Up may be especially amenable to this type of service delivery model.

Another barrier to implementation of a treatment such as the Warrior Check-Up (an advertisement strategy to elicit participation combined with a MIF intervention) is attitudes within the military. This intervention was developed to allow for anonymous receipt of services. However, this model may raise con-

Table 5
Frequency of Endorsement of Treatment-Seeking Behaviors by Treatment Condition and Time Point

Treatment-seeking behavior	Baseline		3-month follow-up		6-month follow-up	
	Control	MIF	Control	MIF	Control	MIF
Attended at least one session of treatment	2 (1.7)	0 (.0)	17 (15.9)	15 (14.7)	14 (13.6)	12 (12.6)
Attended an intake interview or session	1 (.8)	0 (.0)	13 (12.2)	11 (10.8)	14 (13.6)	12 (12.6)
Applied for acceptance in a treatment program	2 (1.7)	0 (.0)	10 (9.4)	11 (10.8)	7 (6.8)	6 (6.3)
Went to an agency to inquire	2 (1.7)	5 (4.2)	12 (11.2)	14 (13.7)	7 (6.8)	7 (7.4)
Called an agency for an appointment	1 (.8)	6 (5.0)	10 (9.4)	10 (9.8)	10 (9.7)	11 (11.6)
Contacted an agency for further information	8 (6.6)	7 (5.8)	11 (10.3)	11 (10.8)	11 (10.7)	10 (10.5)
Attended a 12-step meeting (e.g., AA, NA)	6 (5.0)	2 (1.7)	14 (13.1)	8 (7.8)	12 (11.7)	8 (8.4)
Met with a religious or spiritual leader (e.g., chaplain, priest, preacher, rabbi, imam) to discuss substance use concerns	10 (8.2)	7 (5.8)	14 (13.1)	7 (6.9)	12 (11.7)	8 (8.4)
Withdrew from treatment	0 (.0)	0 (.0)	2 (1.9)	4 (3.9)	3 (2.9)	0 (.0)

Note. Values presented are *n*, with percentage in parentheses. MIF = motivational interviewing plus personalized feedback; AA = Alcoholics Anonymous; NA = Narcotics Anonymous.

cerns within the military when implemented outside of a re-search context. To widely implement an intervention such as the Warrior Check-Up would involve changes in attitudes through-out the command structure toward increasing and reducing stigma about help seeking around misuse of alcohol or illicit substances. This change, however, is consistent with recommendations by the Institute of Medicine (2012) for addressing military substance use. Overall, this study adds to the small literature on AUD interventions adapted for and tested on active-duty military populations and suggests that the WCU may be both a promising approach for decreasing barriers to AUD intervention and one that results in clinically significant improvements in drinking. The brevity of the intervention and the fact that it is delivered via telephone

add

to its potential for implementation Army-wide. Despite these limitations, the current investigation to similar populations.

References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Armed Forces Health Surveillance Center. (2015). Hospitalizations among members of the active component, U.S. Armed Forces, 2014. *Medical Surveillance Monthly Report, 22,* 11–17. Retrieved from http://www.health.mil/Reference-Center/Reports/2015/01/01/Medical-Surveillance-Monthly-Report-Vol-22-No-1

Baer, J. S., Kivlahan, D. R., Blume, A. W., McKnight, P., & Marlatt, G. A. (2001). Brief intervention for heavy-drinking college students: 4-year follow-up and natural history. *American Journal of Public Health, 91,* 1310–1316. http://dx.doi.org/10.2105/AJPH.91.8.1310

Barlas, F., Higgins, W., Pflieger, J., & Diecker, K. (2013). *2011 Department of Defense Health related behaviors survey of active duty military personnel.* Fairfax, VA: ICF International.

Ben-Zeev, D., Corrigan, P. W., Britt, T. W., & Langford, L. (2012). Stigma of mental illness and service use in the military. *Journal of Mental Health, 21,* 264–273. http://dx.doi.org/10.3109/09638237.2011.621468

Bray, R. M., Brown, J. M., & Williams, J. (2013). Trends in binge and heavy drinking, alcohol-related problems, and combat exposure in the U.S. military. *Substance Use & Misuse, 48,* 799–810. http://dx.doi.org/10.3109/10826084.2013.796990

Bray, R., Pemberton, M. R., Hourani, L. L., Witt, M., Rae Olmsted, K. L., Brown, J. M., . . . Bradshaw, M. R. (2009). *2008 Department of Defense survey of health related behaviors among active duty military personnel.* Retrieved from http://www.tricare.mil/tma/2008healthbehaviors.pdf

Burnett-Zeigler, I., Ilgen, M., Valenstein, M., Zivin, K., Gorman, L., Blow, A., . . . Chermack, S. (2011). Prevalence and correlates of alcohol misuse among returning Afghanistan and Iraq veterans. *Addictive Behaviors, 36,* 801–806. http://dx.doi.org/10.1016/j.addbeh.2010.12.032

Claxton, G., Rae, M., Panchal, N., Damico, A., Bostick, N., Kenward, K., & Whitmore, H. (2014). *Employer health benefits: 2014 annual survey.* Retrieved from http://files.kff.org/attachment/2014-employer-health-benefits-survey-full-report

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112,* 155–159. http://dx.doi.org/10.1037/0033-2909.112.1.155

Collins, R. L., Parks, G. A., & Marlatt, G. A. (1985). Social determinants of alcohol consumption: The effects of social interaction and model status on the self-administration of alcohol. *Journal of Consulting and Clinical Psychology, 53,* 189–200. http://dx.doi.org/10.1037/0022-006X.53.2.189

Cucciare, M. A., & Ghaus, S. (2012). A web-based intervention for alcohol misuse in VA primary care. *Psychiatric Services, 63,* 292. http://dx.doi.org/10.1176/appi.ps.20120p292

Department of Defense. (2014). *2014 demographics profile of the military community.* Retrieved from http://download.militaryonesource.mil/12038/MOS/Reports/2014-Demographics-Report.pdf

Department of the Army. (2010). *Army health promotion, risk reduction, suicide prevention report 2010.* Retrieved from http://csf2.army.mil/downloads/HP-RR-SPReport2010.pdf

Department of the Army. (2012a). *Army regulation 600–85: The Army Substance Abuse Program.* Retrieved from http://armypubs.army.mil/epubs/pdf/r600_85.pdf

Department of the Army. (2012b). *Army 2020: Generating health & discipline in the force ahead of the strategic reset.* Retrieved from http://usarmy.vo.llnwd.net/e2/c/downloads/235822.pdf

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (2002). *Structured Clinical Interview for DSM–IV–TR Axis I Disorders, Patient Edition (SCID-I/P).* New York, NY: Biometric Research Department, New York State Psychiatric Institute.

Foran, H. M., Heyman, R. E., Smith Slep, A. M., & Snarr, J. D. (2012). Hazardous alcohol use and intimate partner violence in the military: Understanding protective factors. *Psychology of Addictive Behaviors, 26,* 471–483. http://dx.doi.org/10.1037/a0027688

Forcehimes, A. A., Tonigan, J. S., Miller, W. R., Kenna, G. A., & Baer, J. S. (2007). Psychometrics of the Drinker Inventory of Consequences

(DrInC). *Addictive Behaviors, 32,* 1699–1704. http://dx.doi.org/10.1016/j.addbeh.2006.11.009

Gibbs, D. A., Rae Olmsted, K. L., Brown, J. M., & Clinton-Sherrod, A. M. (2011). Dynamics of stigma for alcohol and mental health treatment among army soldiers. *Military Psychology, 23,* 36–51. http://dx.doi.org/10.1080/08995605.2011.534409

Hardin, J. W., & Hilbe, J. M. (2012). *Generalized linear models and extensions* (3rd ed.). College Station, TX: Stata Press.

Harwood, H. J., Zhang, Y., Dall, T. M., Olaiya, S. T., & Fagan, N. K. (2009). Economic implications of reduced binge drinking among the military health system's TRICARE Prime plan beneficiaries. *Military Medicine, 174,* 728–736. http://dx.doi.org/10.7205/MILMED-D-03-9008

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351,* 13–22. http://dx.doi.org/10.1056/NEJMoa040603

Institute of Medicine. (2012). *Substance use disorders in the U.S. Armed Forces*. Retrieved from National Academies Press website: http://www.nap.edu/catalog.php?record_id=13441

Kim, P. Y., Thomas, J. L., Wilk, J. E., Castro, C. A., & Hoge, C. W. (2010). Stigma, barriers to care, and use of mental health services among active duty and National Guard soldiers after combat. *Psychiatric Services, 61,* 582–588. http://dx.doi.org/10.1176/ps.2010.61.6.582

Kivlahan, D. R., Marlatt, G. A., Fromme, K., Coppel, D. B., & Williams, E. (1990). Secondary prevention with college drinkers: Evaluation of an alcohol skills training program. *Journal of Consulting and Clinical Psychology, 58,* 805–810. http://dx.doi.org/10.1037/0022-006X.58.6.805

Larson, M. J., Mohr, B. A., Adams, R. S., Wooten, N. R., & Williams, T. V. (2014). Missed opportunity for alcohol problem prevention among Army active duty service members postdeployment. *American Journal of Public Health, 104,* 1402–1412. http://dx.doi.org/10.2105/AJPH.2014.301901

LeardMann, C. A., Powell, T. M., Smith, T. C., Bell, M. R., Smith, B., Boyko, E. J., . . . Hoge, C. W. (2013). Risk factors associated with suicide in current and former US military personnel. *Journal of the American Medical Association, 310,* 496–506. http://dx.doi.org/10.1001/jama.2013.65164

Marshall, B. D. L., Prescott, M. R., Liberzon, I., Tamburrino, M. B., Calabrese, J. R., & Galea, S. (2012). Coincident posttraumatic stress disorder and depression predict alcohol abuse during and after deployment among Army National Guard soldiers. *Drug and Alcohol Dependence, 124,* 193–199. http://dx.doi.org/10.1016/j.drugalcdep.2011.12.027

Mattiko, M. J., Olmsted, K. L. R., Brown, J. M., & Bray, R. M. (2011). Alcohol use and negative consequences among active duty military personnel. *Addictive Behaviors, 36,* 608–614. http://dx.doi.org/10.1016/j.addbeh.2011.01.023

Mattke, S., Liu, H., Caloyeras, J. P., Huang, C. Y., Van Busum, K. R., Khodyakov, D., & Shier, V. (2013). *Workplace Wellness Programs Study final report*. Retrieved from http://www.dol.gov/ebsa/pdf/workplacewellnessstudyfinal.pdf

Mbilinyi, L. F., Neighbors, C., Walker, D. D., Roffman, R. A., Zegree, J., Edleson, J., & O'Rourke, A. (2011). A telephone intervention for substance-using adult male perpetrators of intimate partner violence. *Research on Social Work Practice, 21,* 43–56. http://dx.doi.org/10.1177/1049731509359008

McDevitt-Murphy, M. E., Murphy, J. G., Williams, J. L., Monahan, C. J., Bracken-Minor, K. L., & Fields, J. A. (2014). Randomized controlled trial of two brief alcohol interventions for OEF/OIF veterans. *Journal of Consulting and Clinical Psychology, 82,* 562–568. http://dx.doi.org/10.1037/a0036714

Miller, W. R., & Wilbourne, P. L. (2002). Mesa Grande: A methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction, 97,* 265–277. http://dx.doi.org/10.1046/j.1360-0443.2002.00019.x

Milliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association, 298,* 2141–2148. http://dx.doi.org/10.1001/jama.298.18.2141

Moyers, T., Martin, T., Catley, D., Harris, K. J., & Ahluwalia, J. S. (2003). Assessing the integrity of motivational interviewing interventions: Reliability of the motivational interviewing skills code. *Behavioural and Cognitive Psychotherapy, 31,* 177–184. http://dx.doi.org/10.1017/S1352465803002054

Moyers, T., Martin, T., Manuel, J. K., Miller, W. R., & Ernst, D. (2010). *Revised Global Scales: Motivational Interviewing Treatment Integrity 3.1.1 (MITI 3.1.1)*. Retrieved from http://www.motivationalinterviewing.org/sites/default/files/MITI%203.1.pdf

Naito, N. A., & Higgins, S. T. (2012). Controlling health care costs in the military: The case for using financial incentives to improve beneficiary personal health indicators. *Preventive Medicine, 55* (Suppl.), S113–S115. http://dx.doi.org/10.1016/j.ypmed.2012.06.022

National Institute on Alcohol Abuse and Alcoholism. (2015). *Rethinking drinking: Alcohol and your health*. Retrieved from http://rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/Is-Your-Drinking-Pattern-Risky/Whats-Low-Risk-Drinking.aspx

Pemberton, M. R., Williams, J., Herman-Stahl, M., Calvin, S. L., Bradshaw, M. R., Bray, R. M., . . . Mitchell, G. M. (2011). Evaluation of two web-based alcohol interventions in the U.S. military. *Journal of Studies on Alcohol and Drugs, 72,* 480–489.

Pietrzak, R. H., Goldstein, M. B., Malley, J. C., Rivers, A. J., Johnson, D. C., & Southwick, S. M. (2010). Risk and protective factors associated with suicidal ideation in veterans of Operations Enduring Freedom and Iraqi Freedom. *Journal of Affective Disorders, 123,* 102–107. http://dx.doi.org/10.1016/j.jad.2009.08.001

Possemato, K., Wade, M., Andersen, J., & Ouimette, P. (2010). The impact of PTSD, depression, and substance use disorders on disease burden and health care utilization among OEF/OIF veterans. *Psychological Trauma: Theory, Research, Practice, and Policy, 2,* 218–223. http://dx.doi.org/10.1037/a0019236

Rosen, C. S., Greenbaum, M. A., Fitt, J. E., Laffaye, C., Norris, V. A., & Kimerling, R. (2011). Stigma, help-seeking attitudes, and use of psychotherapy in veterans with diagnoses of posttraumatic stress disorder. *Journal of Nervous and Mental Disease, 199,* 879–885. http://dx.doi.org/10.1097/NMD.0b013e3182349ea5

Simon-Arndt, C. M., Hurtado, S. L., & Patriarca-Troyk, L. A. (2006). Acceptance of web-based personalized feedback: User rating of an alcohol misuse prevention program targeting U.S. marines. *Health Communication, 20,* 13–22.

Stahre, M. A., Brewer, R. D., Fonseca, V. P., & Naimi, T. S. (2009). Binge drinking among U.S. active-duty military personnel. *American Journal of Preventive Medicine, 36,* 208–217. http://dx.doi.org/10.1016/j.amepre.2008.10.017

U.S. Department of Labor. (2014). *Fact sheet: The Affordable Care Act and wellness programs*. Retrieved from http://www.dol.gov/ebsa/newsroom/fswellnessprogram.html

Walker, D. D., Roffman, R. A., Picciano, J. F., & Stephens, R. S. (2007). The check-up: In-person, computerized, and telephone adaptations of motivational enhancement treatment to elicit voluntary participation by the contemplator. *Substance Abuse Treatment, Prevention, and Policy, 2:* 2. http://dx.doi.org/10.1186/1747-597X-2-2

Walker, D. D., Stephens, R., Roffman, R., Demarce, J., Lozano, B., Towe, S., & Berg, B. (2011). Randomized controlled trial of motivational enhancement therapy with nontreatment-seeking adolescent cannabis

users: A further test of the teen marijuana check-up. *Psychology of Addictive Behaviors, 25,* 474–484. http://dx.doi.org/10.1037/a0024076

Walton, T. O., Walker, D. D., Kaysen, D. L., Roffman, R. A., Mbilinyi, L., & Neighbors, C. (2013). Reaching soldiers with untreated substance use disorder: Lessons learned in the development of a marketing campaign for the Warrior Check-Up study. *Substance Use & Misuse, 48,* 908–921. http://dx.doi.org/10.3109/10826084.2013.797996

Wright, K. M., Foran, H. M., Wood, M. D., Eckford, R. D., & McGurk, D. (2012). Alcohol problems, aggression, and other externalizing behaviors after return from deployment: Understanding the role of combat exposure, internalizing symptoms, and social environment. *Journal of Clinical Psychology, 68,* 782–800. http://dx.doi.org/10.1002/jclp.21864

Zinzow, H. M., Britt, T. W., Pury, C. L. S., Raymond, M. A., McFadden, A. C., & Burnette, C. M. (2013). Barriers and facilitators of mental health treatment seeking among active-duty Army personnel. *Military Psychology, 25,* 514–535. http://dx.doi.org/10.1037/mil0000015

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The Warrior Check-Up

CLINICAL MANUAL

Contents

APPENDICES

1 INTRODUCTION AND OVERVIEW OF TREATMENT

The purpose of this manual is to acquaint counselors in the Warrior Check-Up project with the procedures of the study that are relevant to their participation. This manual will provide an overview of the project, review participant flow from intake to treatment assignment to termination and follow-up, and specify the role of the counselors in all phases of the study.

Counselors should be thoroughly familiar with the contents of each session prior to the beginning of the session. Allowing for some degree of individual personal style, counselors should nevertheless attempt to ask questions and cover issues in ways similar to how they are presented here. While it is recognized that the actual content of the counseling will be affected by the individual client, every effort should be made to cover the core topics and relevant electives given the individual case.

1.1 OVERVIEW

Telephone Study. This is a telephone-based study. Screening, assessment, intervention and follow-ups will all be conducted via the telephone. All participants will have the opportunity to attend an optional in-person session designed to help inform them of treatment resources available to them.

Population. This intervention was developed to work with active military personnel who have concerns about their drinking or use of other substances, but who are not currently in treatment. It is conceptualized as a first step for those who are contemplating their behavior and are interested in thinking and talking with someone about their concerns. The Warrior Check-Up is intended to be a resource for active military personnel who may not be interested in or think they are in need of formal treatment services for Substance Abuse (SA). The Check-Up provides a "taking stock" experience in evaluating these behaviors, their effects and their desires or motivation for change.

Overview of the Interventions. Participants in this study, all of whom meet criteria for substance abuse and other inclusion/exclusion criteria, will be randomly assigned to one of two groups:

Motivational Enhancement Therapy (MET). In this intervention, participants will receive a personalized feedback report (PFR) via mail or delivery and will meet with a counselor via telephone for one session. This session is intended to assist the participant in contemplating their IPV and SA behavior and offer objective and non-judgmental feedback on factors related to IPV and SA. Motivational enhancement therapy will be conducted including the review of the PFR.

Education. In this intervention, participants will receive education on the effects of SA, law regarding use and military policies on SA.

Session Length. Intervention session length is between 60-90 minutes. For the purpose of standardizing treatment within each intervention, counselors are encouraged to carefully adhere to this timeframe with the exception of circumstances in which it would clearly be unethical due to the client's needs.

Adjunctive Treatments. As part of the enrollment process, participants are screened to determine if they are participating in substance abuse treatments. Those who are will not be eligible for this study.

However, it's possible that participants will seek the counselor's advice about whether participation in a self-help group for substance use or entering a treatment program for SA might be helpful. Counselors should take an active role in encouraging the participant to consider treatment options.

Participant-Counselor Relationship. The participant-counselor relationship is at the core of the change process and a positive relationship is seen as the foundation of the intervention. Even if treatment is brief, the counselor should recognize that the quality of the relationship is the foremost aspect of treatment.

Moreover, if the relationship with the counselor and the rest of the study staff is positive, compliance and retention are more likely. Thus, the counselor should strive to promote the therapeutic relationship throughout the treatment through empathic listening, providing support and encouragement, displaying genuine concern for the participant and his welfare, responding to participant concerns and addressing disagreements when they occur, providing needed clarifications and explanations throughout treatment.

Counselors should avoid conversations that are likely to elicit resistance. These include aggressive confrontation of denial, excessive questioning, interrupting the participant, arguing with the participant, and so on. The counselor must be responsive to participant concerns and complaints while providing a consistent structure for the session.

Counselor behaviors that avoid resistance, such as reflective listening and reframing participant's concerns are encouraged. Factors such as the participant-counselor relationship have been shown to have consistent and robust effect sizes, often larger than the discernible effect of 'active ingredients' of different psychotherapies.

1.2 A NOTE ON BALANCING ADHERENCE AND ADDRESSING NEEDS OF THE CLIENT

There is an important distinction between adherence and competence, adherence being the degree to which the counselor follows the guidelines laid out in the intervention manual, and counselor competence, which refers to the counselor's level of skill in delivering that treatment. Several investigators have noted that a counselor's adherence and competence are not necessarily closely related. That is, a counselor can follow a treatment manual virtually word-for-word and not deliver that treatment competently or skillfully (e.g., with an appropriate level of flexibility and understanding of a particular participant, using appropriate timing and language). In some cases extremely high adherence (e.g., a wooden, mechanistic, rote repetition of material in the manual) may be indicative of very low competence in a counselor. High adherence and low skillfulness may also occur in cases where a counselor delivers a technique perfectly, but at an inappropriate time that is insensitive to the needs of a particular participant. Conversely, there may be cases of high skillfulness and low adherence, for example where a counselor empathically responds to the participant and provides incisive interpretations at the precise moment they're most likely to be helpful, but rarely touches on material described in the manual.

Achieving a high level of adherence to the manual and fostering a positive therapeutic alliance should be seen as complementary, not contradictory, processes. Each of the counseling skills used in MET should be seen as part of a supportive interaction that are intended specifically to cultivate a good working relationship and build participant motivation for treatment and abstinence.

1.3 ORIENTING THE PARTICIPANT /

It is critical that participants be oriented to the intervention session and to their relationship with you. During the session, some time should be spent describing what the session will be like, and answering any questions they may have. There should be a discussion about of information disclosed in counseling and the limits on or anonymity. Although the participant signed an informed consent form to enroll in the study, he may not remember or understand the issues around, and it's good clinical practice to reiterate this.

Assessing for Privacy for the Session. Phone counseling offers some challenges. Specifically, participants can be engaged in a counseling session in a space that is less than ideal (while driving, working, or in the midst of others). It is crucial that the participant is informed about the differences between the assessment sessions (participant is asked a lot of closed ended questions, assessor does a lot of the talking) versus a MET session (participant does most of the talking and speaks at length and in detail about their substance use). Specifically, the participant needs to be asked if he is in a private space out of earshot of family or others. This is to protect the quality of the conversation (so that the participant can speak freely and honestly).

MET sessions should be conducted in a private environment so as to support the participant in answering questions thoughtfully and honestly. Participants should be reminded before their MET sessions that they will need to be in a private space with few distractions so they can talk openly about the concerns they have called us with. If it becomes evident during a session that their children or partner is present, the session should be terminated politely and immediately. It can be emphasized that the conversation needs to happen in a private place since the topic can be sensitive and sometimes taboo to discuss.

1.4 MANAGING SESSIONS

1.4.1 Rescheduling Missed Sessions

Participants will be encouraged to attend each scheduled session, and to give staff at least 24-hours notice if a session needs to be rescheduled. The counselor and participant should discuss whether a reminder call will be helpful in order to promote session attendance.

Because this study's purpose is to evaluate the efficacy of the intervention, we want to accommodate clients who need to reschedule. However, the MET sessions must be completed within a certain timeframe after their baseline assessment was conducted. The Participant Contact and Retention Protocol has been included below to guide counselors through no-shows and missed sessions.

1.4.1.1 Participant Contact and Retention Protocol

This protocol is intended to supplement the MET manual's guidelines on participant contact for MET sessions.

In order to increase participant retention and decrease no-shows for sessions (assessment and clinical) a reminder call is required to be made to the participant the day before a session is scheduled. If a participant communicates a plan for a reminder that would be more helpful to him, this plan should be followed (such as a reminder call the morning of the session date, etc).

1) Have a conversation with the participant that lets him know that you would like to make a reminder call. "We like to make a reminder call to all of our participants."
2) Ask him what would be most helpful to him (time, day, etc.). "We normally make the reminder call the day before the appointment. Would that be helpful? If not, what would be most helpful to you? For example, an email or a call at a different time?"
3) Clarify how he would like this reminder (what phone number should be called or email address used or both). "What phone number should I use? And is there a specific time period that you would like to receive the call (i.e, morning, afternoon or evening)?"

Reminder calls are to be made the day before the appointment. For Monday appointments, reminder calls should be made on the Friday before the appointment. It is ideal to check-in with Monday appointments at the time you are scheduling to ask the participant what might be most helpful to him. If you cannot make the contact yourself, schedule the contact to be made in the assessment book.

In the case of no-shows for MET session appointments, follow the protocol outlined in the Counselor manual. The protocol is pasted below:

Missed Sessions Most often, counselors will be calling the participants for counseling sessions. Sometimes a participant will choose to call-in. If no contact is made at the time of session, begin trying alternative ways of contacting the participant. For example, if you are scheduled to call the participant and there is no answer, leave a message with your name and number and the time you were scheduled to meet (if participant agreed for you to leave messages). Wait 5 minutes and call again (not leaving a message this time). You may also send an email reminder of the session letting him know you will be in the office and available (leave the number). If you do not hear from him again, wait 10 minutes and call again. Try to contact him and conduct the session (time permitting) or reschedule. A letter may be sent if there is no word from the participant within a week. Phone calls should be attempted every few days. If 1 week goes by without contact, leave a message or email with his window information.

Lateness When a participant is late for a session, assess your schedules to see if it is at all possible to complete the session that day (either by rescheduling, being able to stay later or agreeing on an abbreviated session length). Sessions should be at least 45 minutes. There could be some exceptions made to this guideline for special circumstances. However, these exceptions will be made on a case-by-case basis and should be discussed with the clinical or project director.

1.4.1.2 Additions to the existing above protocols on Missed Sessions and Lateness:

A letter or email should be sent to the participant (if we have this contact information and permission to use it) after 1 week of no contact after a missed session. This letter should be warm and welcoming. An example might be:

"I'm sorry I missed you on XX date and time for our appointment. I am happy to reschedule with you. These are my available times and hours. You can reach me at 206-XXX-XXXX. In the event that I am unavailable or not in the office, please let one of the research assistants know who you are and that you are calling to reschedule your appointment. They have a list of my hours and will be able to schedule you. Because this is part of a research project, we need to complete this session before (closing window date). I look forward to hearing from you soon! Sincerely, XXX"

No more than 2 business days should go without some type of attempted contact. A week before the window closing date of the participant, an additional letter should be sent (or phone call made) again to notify him of the date the session needs to be completed by.

All difficult to reach cases should also be discussed in supervision. This is so that the team can help brainstorm plans for re-contacting the participant.

1.4.2 Taping of Sessions

All sessions will be audio-taped and digital audio files will be available for review by the Clinical Directors. Taping has the purpose of enhancing quality control and checking for adherence to the written intervention protocols. During the main phase of the study, files will be reviewed to assure that the treatments are being implemented in accordance with manual guidelines and to identify and correct variations in treatment implementation across counselors. The Clinical Directors will conduct MI behavior counts on selected sessions. Written feedback from selected sessions will be provided to the counselors.

It is essential that all sessions be taped in their entirety. Counselors should start taping immediately upon greeting the participant and not stop taping until the phone conversation has ended.

The counselors should: (1) clearly explain the purpose of taping to the participants (taping is for quality control and monitoring of counselor behavior only), (2) explain that only study supervisors listen to the tapes, and (3) use clinical judgment when sensitive or illicit activities are being discussed (it is recommended that counselors stop taping in such cases).

Participants should also be told that they may decline permitting the session to be audio-taped without jeopardizing their eligibility. They also may, at any time, ask that the taping be stopped if sensitive matters are being discussed.

1.4.3 Counselor Assessments

Counselors will complete a Counselor Post-MET Session Checklist, immediately following the feedback session (see appendix). The checklist asks for the extent of various MET techniques used during the session.

1.5 TROUBLESHOOTING: STRATEGIES FOR DEALING WITH COMMON CLINICAL PROBLEMS

Absence of PFR If a participant does not have his PFR with him, ask him if he is able to get it. If not, reschedule the session for a time when he will have it. Explain that it is a vital part of the session and it would be best if he was able to have his copy so that you could look at it together.

Active Child Abuse If the participant reports that he is abusing a child (Washington State definition: Any recent act or failure to act on the part of a parent or caretaker of a child under 18 years old, which results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act which presents an imminent risk of serious harm.) we are required to make a report. Consult the Co-P.I. or Project Director and follow protocol and Special Incident Report (SIR) procedures.

Intoxication at Session When you sense that a participant has been using or is acutely intoxicated, ask if he has used any substances in the last 24 hours. If he is still high or very hung over, explain that we need to conduct sessions when the participant is not under the influence and reschedule the session.

Counselor Self-Disclosure Self-disclosure is a personal decision. However, a few guidelines always apply. Only disclose what you are comfortable with. There should be a significant therapeutic reason for the disclosure. Only disclose information that will likely be of direct benefit to the participant. Avoid using a lot of time discussing your experiences. The session's focus should be on the participant's experiences.

2 OVERVIEW OF EDCON INTERVENTION

The EdCON condition will consist of one 45-50 minute session designed to offer a rich educational experience on the effects of alcohol and drugs on human health and psychosocial functioning. The goal is to educate the participant on the effects of alcohol and drugs while avoiding any discussion regarding the participants own drinking and/or use.

2.1 GENERAL GUIDELINES

2.1.1 An informative and less interactive and personalized style.

It is important to remember that this intervention is informative, but not personalized. The material should be presented in an energetic and upbeat tone; however interactive discussions how the issues pertain to the participants' alcohol and drug use should not be attempted. Encourage the participant to ask questions about educational material and reinforce their curiosity and current knowledge on the topics. The counselor should answer to the best of their knowledge any questions by the participant. If the counselor does not know the answer to a question, say that you don't know, but will do some research and get back to them with the answer.

2.1.2 Avoid MET strategies.

Avoid interactive discussions related what has been learned to the participant's experiences and personal drinking or drug use. Do *not* use reflective listening, techniques to explore and resolve ambivalence around drinking or drug use, or elicit discussions intended to prompt-self-evaluation of drinking or use.

2.1.3 Requests for Referrals

If the client expresses interest in treatment referrals the counselor should respond in an informational and didactic style. The counselor should avoid personalized discussions about the individual's use or reasons for treatment with the client. Counselor and client may review and discuss the resource information included in the education packet. Depending on the client's interest, the discussion may be brief or more detailed, but should be delivered in an educational style.

2.2 GUIDELINES FOR THE COUNSELOR – EDCON

Check to make sure that the participant can devote up to an hour for this session.

Ask if the participant has the Education Booklet available. Request that they have it in front of them during this session.

Ask the participant to review the list of optional topics.

Tell the participant that you'll start with the first two topics ("What's Important to Know about Alcohol" and "What is Blood Alcohol Concentration?").

Ask the participant to identify three additional topics from the list that interest him/her.

Let the participant know that it's possible you'll run out of time. If that happens, you'll give him/her some ideas about where to get information about the remaining topics he/she identified.

Point out to the participant that the booklet includes sections on:

Where to turn for more information about alcohol/other drugs

Where to turn for alcohol or drug counseling

Use your judgment about whether or not to include specific scenarios. If it feels as if there could be too many of them in a session, it's OK to omit one or more of them.

2.3 WHAT DOES THE COUNSELOR DO IF…

The participant says he/she can't spend an hour on the phone for this session.

The participant is in a noisy place or is being interrupted, but doesn't want to reschedule.

The participant is driving while on the telephone.

The participant wants to discuss his/her personal use of alcohol/drugs, his/her concerns, or his/her views about treatment.

The participant doesn't understand the content of the material.

The participant strongly disagrees with the material.

The participant wants to choose other modules to replace one or both of the required alcohol modules.

The participant asks specifically about how the session content applies to him / her.

The participant brings up personal mental health concerns.

The participant knows someone in the study who was assigned to the other condition.

The participant seems intoxicated and doesn't want to reschedule or is not admitting it.

The participant asks if and when we would have to tell "the Army" anything and who we would we tell.

The participant asks what might possibly go on their military record.

The participant talks about habitual drinking and driving and alludes to plans to do so in the future. (Is there a certain amount of danger/ risk that would require us to alert someone?)

The participant knows more than we do about a topic.

The participant discloses personal use (e.g., combining medications with alcohol) and says he/she isn't having any problems.

3 OVERVIEW OF MOTIVATIONAL INTERVIEWING

The principal themes and strategies of counseling involve motivational enhancement treatment. This chapter begins with a general overview of MET followed by more detailed specifications for counseling.

3.1 BEING SENSITIVE TO CLIENT'S STAGE OF CHANGE

How do people actually get started in changing their patterns of substance use? How can we understand their attitudes about making a commitment, coming up with a plan, and actually taking the first steps to reduce their use of substances? And, what skills and attitudes do they need to be successful?

The Stages of Change model gives us a way of thinking about the behavioral change process. It's conceived of as a sequence of stages through which individuals progress as they think about and initiate new behaviors. Part of its value is offering the counselor ideas about how the client might be thinking. When we think of what the client needs from the counselor, we are able to select counseling strategies that are specific to the individual stage the client is in at any point in time.

This model begins with the assumption that movement in reducing one's engagement in substance use depends upon the individual's readiness for these changes, and that this readiness may shift and evolve. The model sensitizes us to the likelihood that individuals typically move back and forth between the stages and progress through the changes at different rates.

Today, my client may be firmly committed to quitting substance use, but next week s/he may be very ambivalent about this goal. Over time, s/he may progress through the stages of readiness (see the table), and experience the attitudes shown for each stage.

If, while contemplating changing his pattern of substance use, the individual is likely to cycle through these stages, sometimes regressing to an earlier stage, how can the counselor assess where the client is

at any one point? Once the person's stage is identified, how can the counselor be supportive of continued movement?

Stages of Change:	
Precontemplation	➢ Not considering change ➢ May be unwilling to change behaviors ➢ Is not personally aware of having experienced adverse consequences because of substance use, although others may believe that there are problems
Contemplation	➢ Has become aware that a problem exists ➢ Perceives that there may be cause for concern and reasons to change behavior ➢ Is typically ambivalent and usually continues to engage in substance use ➢ May seek information and reevaluate substance using ➢ Weighs the pros and cons of making a change ➢ Could remain in this stage for years
Preparation	➢ Forms a commitment to making a change ➢ Sees the advantages of change outweighing the benefits of not changing ➢ Thinks about his capabilities in being successful (i.e., self-efficacy) ➢ Continues engaging in substance use, but with the intention to reduce or stop very soon ➢ May have already attempted to reduce use of substances ➢ Begins to set goals and may tell others about intentions
Action	➢ Has chosen a goal for change and has begun to pursue it ➢ Is actively modifying behavior
Maintenance	➢ Is making efforts to sustain the gains achieved during the action phase ➢ Is working to prevent recurrence of substance use ➢ Is learning how to detect and guard against risky situations ➢ Requires prolonged behavior change and continued vigilance for at least 6 months to several years

Motivational interviewing skills include the use of a number of important counseling strategies. We'll identify each and offer some illustrations.

3.2 ASKING OPEN-ENDED VERSUS CLOSED QUESTIONS

In interviewing a participant, there's a risk that asking one closed-ended question after another will rapidly train the client to be passive, answering each question and then quietly waiting for the next. This type of questioning tends to be one-sided, much like we commonly see in surveys of voters' opinions around election time. The interviewer is in control, and the interviewee responds to each cue.

Rather than encouraging the client to adopt an active role in his or own treatment, the overuse of closed-ended questions defeats the client from becoming empowered. Here are two parallel examples of interviewer questioning styles:

Closed-ended questions:

- Do you drink?
- Do you use substances with friends or alone?
- Have you ever experienced problems with your substance use?
- Do you want to reduce your use of prescription medications?

Open-ended questions:

- Tell me about what interested you in calling the study?
- What thoughts have you had about reducing your drinking?
- Explain to me when you use alcohol and/or drugs. What are some typical situations in which you use?
- Please describe for me some of the positive and negative aspects of your using?

Closed-ended questions aren't bad. Indeed, they can be an efficient way to obtain lots of information quickly. Using them frequently in counseling sessions, however, will most likely shut down the client from actively engaging in the counseling.

3.3 LISTENING REFLECTIVELY

An alternative to asking a question is to use a reflection. It might take the form of simply repeating the client's words or paraphrasing his comments. Sometimes the reflection adds some inferred meaning to what the client had said, almost as a way of checking out the counselor's hunch. The skilled listener can help the client further explore his own thoughts and feelings by using reflective listening skills. Here are some examples:

Client: *I've tried to quit drinking, but have never made it for longer than a month*.

Counselor: *Keeping it going has been hard*.

Client: *Yeah. I can't help feeling pessimistic about what will happen if I try it again*.

Client: *My sister is always pressuring me to quit. I think I've got to want to do it for me if this is really going to work*.

Counselor: *In a way, pressure from your sister is distracting you from tuning in to your needs with regard to your substance use.*

Client: *It's almost as if I resist this because I don't want to feel that my sister controls my life*.

Client: *My buddy says that he'll support me if I decide to quit using before work, but I know there will be times when he'll pressure me to smoke with him.*

Counselor: *You'd like it if your friend would always be supportive of your efforts to reduce your smoking, and you also want to be ready to handle it when he pressures you to smoke in situations that you don't want.*

Client: *Yeah, I guess I've been thinking that's not possible*.

3.4 Affirmation of the Client

Admitting that one is thinking about their substance use, participating in the check-up project, summoning the courage to make changes, and many other aspects of taking an objective look at one's behavior are difficult and risky. The staff member can be supportive by periodically offering genuine compliments and expressions of awareness:

The fact that you are concerned about your health is important.

You've been thinking about changing your use for a long time, and now you're taking the first steps. I'm guessing that you feel good about that.

Deciding to stop drinking wasn't a minor decision for you. I'd guess that would require a real commitment to leave this behind.

3.5 Summarizing Client's Perspectives about Change

As the client reveals and explores various facets of his thinking about changing his behaviors, the counselor can be supportive by summarizing key issues. Hearing this consolidation of his own ideas can prompt greater awareness in the client as well as readiness to seek resolution of mixed motivations. An example follows:

If I understand you correctly, you're aware of some important reasons to make changes while, at the same time, you're thinking there are important reasons <u>not</u> to change. On the side of quitting substance use is your desire to protect your health and your hope to overcome a tendency to procrastinate on this issue. On the side of not quitting is your fear that you'll lose some of your friends and being fearful that you'll not make it for very long. Have I got it right? What are your thoughts about this?

3.6 Eliciting Self-Motivational Statements

While some participants walk in the door with a 100% commitment to change their behavior, many others bring with them considerable ambivalence which actually may increase over time. The MET sessions are designed to assist participants with ambivalent attitudes in exploring their thoughts and contemplating their choices.

Our hope is that participating in these sessions will lead participants to being more likely to recognize a problem if it exists (*I guess my drinking is interfering with my goal of getting a promotion*), express concern about it (*I'm worried about whether I can overcome this*), express an intention to change (*Now's the time for me to change*), and feel positive about the prospects of succeeding (*I can change my patterns of substance use).*

The staff member can elicit expressions of motivation from the participant with open-ended questions such as the following:

Recognizing the problem

How has your drinking interfered with things that are important to you?

What convinces you that the way you're using prescription medications has become a problem?

Expressions of concern

What aspects of your drinking have you, or people close to you, feeling worried?

What do you imagine could happen to you if you continued to use substances the way you have been?

Intentions to change

When you signed up for this program, you probably had some hope that things would get better. What would improve in your life if your hopes were met?

What are some reasons why you should continue to use the way you have been? And, what about the reasons why you think it's time to change?

Expressions of optimism

What leads you to think that you could succeed if you decided to do that?

What part of you is feeling encouraged about changing?

In using these strategies, the principal purpose is to elicit the participant's ownership of the problem and expressions of readiness to change.

3.7 Acknowledging Expressions of Motivation

The participant might express motivation in very direct ways (e.g., I don't ever want to drink and drive again.) or in ways that are less overt (e.g., It's a hassle always worrying if my CO is going to ask me to take a drug test.)

In either case, the staff member can use reflections to acknowledge having heard the participant's desire for something to change:

You're committed to changing your drinking.

Deciding not to use cocaine would really take a load off of your mind.

In both of the above cases, the staff member's reflections highlight a desire expressed by the participant.

3.8 Reinforcing Client's Self-Efficacy

When the participant gives some indication of feeling confident in being able to successfully change, it's helpful for the staff member to acknowledge having heard this.

Participant: Growing up, I watched my dad drink and be mean to my mom and I remember how frightening it was to me. I knew I didn't want to be that way when I grew up and got married, yet here I am.

Counselor: As a kid you saw some scary things happen between your parents. It frightened you. You wanted things to be different in your own marriage.

Other examples of affirming change talk*:*

You promised yourself you'd never let drinking get in the way of your career.

You're thinking that having successfully quit smoking cigarettes to avoid the health risks is a hopeful indication that you can succeed in quitting smoking pot for similar reasons.

When you think about quitting, you're fairly confident that you can do this over the summer.

3.9 Recognizing and Dealing with Resistance

A client who argues with the counselor, frequently interrupts, or denies that a behavior is a problem is conventionally viewed as being not motivated to change. An alternative perspective is that client resistance is a signal that the counselor is being perceived as misunderstanding how the client is actually thinking and feeling.

When the counselor thinks of these behaviors as a signal that he or she needs to better understand the client's experience, a control battle between counselor and client is less likely to occur. The counselor may be supportive of the client by using reflections that demonstrate that the counselor has heard what the client has said and is not being judgmental. As will be seen in the following example, the counselor's reflections can also prompt the client to further explore his thoughts and feelings.

Participant: *I don't understand why you folks want everyone to quit drinking. Maybe I'd be better off if I just didn't tell you that I am drinking.*

Counselor: *It's important to you to make some changes to use less often, but you're not sure how best to do that. I can see that you're eager to find the best goal for your needs.*

In this example, the counselor might have offered a defense of quitting, given advice about why the participant really ought to buckle down and accept reality, etc. Those responses probably would have led the participant to "dig in" even more with resistant statements. Rolling with resistance conveys the counselor's acceptance of the participant's point of view and invites him to be open to a slight variation on the theme.

3.10 Recognizing Readiness for Change

Expressions of motivation can take a variety of forms. The counselor needs to listen carefully and acknowledge hearing such expressions when they occur. Some examples follow:

Participant: *I hate worrying about my marriage – whether she'll just give up and file for divorce because she's sick of me drinking at night.*

Counselor: *You know that you want a happy marriage and drinking may be getting in the way of that.*

Participant: *I hate worrying about whether or not I'm going to get busted by my CO.*

Counselor: Life would be simpler if you weren't using.

Participant: *I tell myself not to use cocaine on the weekends, but sure enough, I do it again.*

Counselor: *You'd really like to leave cocaine behind.*

Participant: *One of the things that I see happening over and over is my promising myself to not drink and then I do.*

Counselor: *You'd really like to stop disappointing yourself*.

Participant: *My girlfriend gets really upset when she thinks I've been using percoset and I hate her thinking I'm a druggie.*

Counselor: *You don't like worrying your girlfriend and it's important to you that people close to you take you seriously*.

3.11 Developing Discrepancy

Clients experiencing difficulties with substance use are likely to be experiencing some major interference with aspects of their lives that are important. The counselor can help the client focus on these "costs" of continued use or heavy use by pointing them out and seeking the client's perspectives.

In motivational interviewing terms, the counselor is developing discrepancy between using substances and other life goals by putting the issue on the table. Some examples follow:

> *I want to check something out with you. I've heard you talk about how important it is to you to get promoted. That's a goal. But, you've also talked about how pot makes it easier for you to relax at night. That's another goal. I wonder what your thoughts are about these two goals.*

> *Let's see. You've told me that sometimes when you drink too much, you behave in ways that frighten your partner, like yelling or behaving disrespectfully to her. Yet, you've also said that there are no down sides to drinking. I'm a little confused.*

3.12 Suggested Readings

Miller W.R., & Rollnick, S., (2002). Motivational Interviewing: Preparing People for Change, 2nd ed. Guilford Press, New York, USA. Chapters 1-14 (**see book**)

Murphy C., & Eckhardt, C. (2005) Treating the Abusive Partner: An Individualized Cognitive-Behavior Approach. Guilford Press. Chapter 7 (**see reading packet**)

4 Conducting the MET Session

4.1 Session Outline

Orientation to the Session

Private space to talk?

Audiotaping

PFR – received? Have it with you?

Building Rapport

Reviewing the Personalized Feedback Report (PFR)

Assessing Readiness to Change

Change Plan Worksheet (optional)

Shortening the PFR

Conclude Session

4.2 REVIEWING THE PERSONAL FEEDBACK REPORT

4.2.1 Materials needed for this session:

Counselor:

- 1 copy of the participant's Personal Feedback Report
- 1 copy of the "Understanding Your Personal Feedback Report" booklet

Participant:

- Participant must also have a copy of his Personal Feedback Report

4.2.2 Suggested time guidelines for this session:

- Rapport-building…….15-20 minutes
- PFR…… 45-55 minutes
- Goals/Strategies……. 5-15 minutes

4.2.3 Building Rapport

This is an important part of the treatment: the part where the counselor first gets to know the participant. The counselor should begin by explaining the purpose of the session and how it will be different from the assessment. The counselor should explain what the purpose of this meeting is; i.e., to provide feedback to the participant based on the pretreatment assessment and provide an opportunity to discuss his thoughts and feelings with regard his use of alcohol and/or drugs.

Begin the session with an inquiry concerning how the participant is feeling about continuing. Respond empathically to the participant's concerns and/or feelings of apprehension.

Be careful to not spend too much time on introductions as it is important to cover the PFR and other MET content. Some "warm up" inquiries might include:

- *Tell me a little about yourself.*
- *Tell me what got you interested in joining the project?*
- *What made you think that you could benefit from taking a look at your behavior?*
- *How did you hear about this program?*
- *Have you ever talked with someone about your substance use? (If yes) What were your experiences like?*
- *What would you like to get out of our conversation today?*

4.3 ORIENTATION FOR THE PARTICIPANT

Discuss of information disclosed in counseling and the *limits* on or anonymity (i.e., participant is a danger to self or others; participant provides information leading to suspicion of child or elder maltreatment).

Audio-taping. Remind the participant that the session will be audio-taped. Because this is a research project, the sessions are recorded for the main purpose of ensuring that the sessions are delivered with the highest quality and standards. The project supervisor reviews a sample of the tapes to assess the adherence and competence of the sessions. The counselor behavior is what is focused on.

Private space. Ask the participant if he is in a private space so that the conversation won't be overheard by others.

Copy of PFR? Ask the participant if he received a copy of the PFR in the mail. If so, request that he have it with him as you will be reviewing and discussing it together. If the participant has not received or does not have the PFR with him, reschedule the session for a time when he will have the copy with him.

Assess the Participant's Readiness to Proceed. The counselor may inquire about the participant's feelings or thoughts following the assessment session and whether any major changes have occurred.

Some possible responses from the participant might be:

A change in the participant's substance use.

The seeking of additional treatment and/or attendance at a self-help program.

Conversations about his use or about this program with family or friends.

In listening to the participant's responses, the counselor should use opportunities to support the participant's self-efficacy for change and reinforce expressions of motivation.

Provide an Overview for the Feedback Session. In presenting highlights of this session, the counselor should mention:

"Today's goal is to review the Personal Feedback Report prepared for you.

The goal is to achieve a good understanding about your substance use."

4.4 Review the Personal Feedback Report

The counselor and participant should each have a copy of the participant's Personal Feedback Report.

The counselor leads the participant through a systematic review of the Personal Feedback Report (PFR), giving opportunity for the participant to elaborate on each point.

It's helpful to orient the participant with a general descriptive sentence of each section before diving into discussion about the section. An example of this is to provide a rationale for looking at estimates of behavior and a description of where the data came from before proceeding to looking together at his estimates.

The counselor periodically seeks the participant's current thoughts and feelings as he participates in this review.

Additional ideas are elicited from the participant at specific points in the review.

The counselor utilizes reflective communication to acknowledge and elicit expressions of readiness for change.

4.4.1 Examples of Questions that could elicit Change Talk while using the PFR

Opening

What got you interested in calling the program?

You've seen the ads around, what went into your decision to call?

How does alcohol fit into your life right now?

What are some of the things you like about drinking?

What do you not like so much?

What concerns have you had?

What have you tried before to cut down or quit?

What was it like when you tried to cut down or quit?

Let's open up your feedback report now. We will pay closer attention to some sections as they may be more relevant for you and less time on others if they are less relevant. We'll use the report to help guide our conversation.

Alcohol section

You reported drinking 43 drinks a week… (state the amount and let clients respond/reflect their response)
"That number surprised you," or, "that number is higher than you thought," or, "you knew that the number would be pretty high."

Average number of drinks each occasion
"Here is the amount you estimated that you drink on an occasion and the estimates you gave for how much a typical soldier drinks, this gives an opportunity to compare your drinking with others."

What are your thoughts here as you see the different estimates?

What stands out as you see the comparison?

How does your drinking compare?

BAC

Explain "typical" vs. "your peak BAC," and the BAC levels on the right side of the graph.

What are your thoughts as you see this BAC?

How does this BAC information fit with your perception of your drinking?

Reasons for drinking

Give a quick summary of some of the reasons the client already named *(feel more social, helps to forget, etc.)*

You have already named some reasons why you drink, what are some of the other reasons?

Tell me more about what you enjoy about it.

Consequences

Give brief summary of some of the marked consequences from drinking.

You've shared with me how much you regret drinking the next morning, Tell me more about what you don't like about drinking.

You've listed many consequences from drinking here in the report, what stands out to you as the one of the main consequences?

How does this fit with your goal to go to school?

Money

"In a typical month you spend about $160 on alcohol" (State amount, let client respond, then reflect their response.)"This number is a lot higher than you estimated" "This amount of money is surprising." "You can see this money going toward something else."

How does this amount fit with what you thought you were spending?

What are your thoughts here as you see this amount spent per month?

Mental Health / Military Stress

"We include this section because military stress or combat stress is common with deployment experiences and/or the demand and stress of being in the military. Drinking can tie into stress for many service members.

How does military stress play a role in your drinking?

How does stress fit in with your drinking?

This is can be a good place to check-in about mental health therapy/PCP, other supports, particularly if the client has a high level of military stress, anxiety, depression.

Summary of Risk Factors

Review with service member and weave into summary of conversation.

Life Goals

Give brief summary of what you have heard the client share about what is important to him/her, values, goals, etc. In this section, we are linking their goals and values and inviting the client to explore how drinking fits in.

"You have mentioned throughout our conversation today about the importance of being a father and what that means to you. I am not surprised that you mentioned this as your first goal," or, "This is an opportunity to take some time to focus on what the things that really matter to you and where you want to go."

Tell me more about being a better spouse, your first goal that you listed here.

How does drinking fit with that goal?"

Ending

Summarize the conversation and ask about Next Steps:

What do you want to do next?

You have said throughout this conversation that you want to stop drinking, how do you want to do that?

What is your first step?

What are the important parts of your personal quit plan?

Who will support you in your efforts?

What will that look like?

You aren't quite sure if you are ready to reduce your drinking right now, what would tell you that it was time?

How would you know that you were ready?

You have said that you would like to reduce your drinking to 2-3 beers per night, what will help you make that change?

How will you know that it is working?

How will you know your plan is not working so well?

Support/Referrals

Do you have the community brochure? Let's look at this together to see if this can be helpful for you now or at another time, I wanted to point out a couple specifically that I think might be a good fit for you.

4.4.2 Alcohol Norms

Actual norms were estimated based on survey responses from 42,706 men and women 18 years and older who provided information about their drinking as participants in the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC, 2001). This data set was collected between 2001 and 2002 from a nationally representative, non- institutionalized sample.

4.4.3 Elicit and Reinforce Participant Motivation to Change

The counselor should summarize the highlights from the Personal Feedback Report (PFR), including reactions and modifications offered by the participant during this session.

The counselor may then seek the participant's overall reactions by asking:

> *"Now that we've both learned quite a bit about your thoughts and experiences with your substance use, how do you find yourself thinking right now?"*

4.4.4 Assist the Participant in Preparing to Initiate Change

The counselor's task at this point is to use MET strategies to assist the participant in goal-setting. Among the options might be the following:

Affirming that the participant has expressed a clear goal of becoming abstinent.

Noting that the participant has a clear goal of reducing but not stopping substance use.

Acknowledging that the participant has feelings of ambivalence, with one part of the participant's hopes including becoming abstinent or reducing use.

Noting that the participant is unable to express any motivation for cessation or reduced use.

The counselor, having noted the participant's current level of readiness for change, can re-focus the discussion to consider the participant's options.

The counselor can assist the participant in preparing to stop using alcohol or drugs by discussing the following issues:

Discuss the optional session for learning about treatment options as a way to help the participant think about and choose a program that will best suit him.

If the participant has not already stopped, he will need to select a beginning day within the next several days. The counselor can help him in weighing the pros and cons of several alternative start dates.

Participants may wish to stop "cold turkey" or gradually reduce his use. The participant's preference concerning these two options can be discussed.

Discuss what the participant will do with his current "stash" and paraphernalia.

Discuss how the participant will approach disclosing his plans to key members of their social network (both supporters and those likely to act as saboteurs).

Plan for how the participant will deal with possible problems in beginning abstinence (e.g. sleep difficulties, boredom, anxiety, restlessness, etc.) in the first week.

4.4.5 Shortening the PFR Review

If the participant is quite clearly ready to make changes in his substance use, the counselor is encouraged to touch on key elements of the PFR, but not to insist on discussing every component of the

document. With a highly motivated client, it's appropriate to shift the focus of the session to goals and strategies. The counselor might suggest this with comments such as the following:

> *"You're clearly committed to making this change. Let me suggest a possibility. What if we review just a few parts of your Personal Feedback Report together, and then ask you to carefully read through it on your own? That'll give us more time in today's session to discuss strategies for making this change. How does that sound?"*

4.4.6 Assist the Participant in Identifying Specific Behavior Change Strategies

As appropriate, the counselor can initiate discussion concerning specific coping strategies in dealing with vulnerabilities to slipping.

The counselor can ask the participant to think about those situations (e.g., certain times of day, certain days of the week, certain places, certain moods, certain thoughts, certain people) that are likely to increase the participant's vulnerability to slipping. Individualized coping strategies for each situation can be identified and discussed.

The participant can be helped in thinking about people from whom he can seek and obtain support while going through this change. Role-playing approaches to asking for support can be conducted.

Previous successful quit experiences can be reviewed in order to identify strategies that might be helpful this time.

The counselor can discuss (and perhaps role-play) ways of handling emergency situations.

4.4.7 Suggest that the Participant Prepare a Change Plan Worksheet

The counselor may recommend that the participant prepare a written worksheet that will summarize:

> The participant's specific goals concerning substance use cessation and the date for initiating change.
>
> The participant's reasons for seeking to change.
>
> Strategies that the participant will use.

The worksheet may be completed during the session if the participant is willing.

4.4.8 Conclude the Session

Just before concluding, the counselor may ask for the participant's feedback concerning what it was like participating in this session. Respond empathically and trouble-shoot any difficulties.

In concluding the session, the counselor should do the following:

Ask participant if he has any questions or concerns to discuss before ending the session.

Indicate that project staff will be contacting them for their 3-month assessment.

4.5 HANDLING REQUESTS FOR REFERRAL

If interest in treatment is expressed early in the intervention, while it might be tempting to jump to problem-solving options, it is still important for the counselor to use MI strategies, including exploring

reasons for treatment, developing discrepancy, eliciting and reinforcing change talk, and affirming efforts, to better understand their individual situation and strengthen commitment to change.

If, as may be more common, the exploration of resources comes at the end of the intervention, the counselor should incorporate information shared throughout the session and strategies mentioned above while exploring the most relevant resources. All of this should be done continuing the spirit of the session which is personalized and respectful of where the person is and they want for themselves. The counselor can explore with the client various characteristics they want or don't want in treatment, what has worked in the past, or concerns they may have about programs. As he client's interest dictate, sharing a menu of options or a thorough discussion of one or more of the resource options is appropriate and encouraged.

Where to turn for alcohol or drug counseling
An Overview of Counseling Resources

		Costs	Issues Addressed	Services
CATEP Alcohol Treatment and Education Program) 253-968-4364	Records go into medical files only, not personnel files. Command not informed.	Free	Alcohol use issues. Related issues including mental health. Military specific issues.	Assessment. Counseling. Education. Groups. Medication and pain management.
ASAP (Army Substance Abuse Program) 253-967-1446 acsap.army.mil	Not Command signs off on treatment plan.	Free	Alcohol and other substance use issues. Related issues including mental health and military specific issues.	Assessment. Counseling. Education. Groups. Medication and pain management.
Military One Source 1-800-342-9647 militaryonesource.com	except for plans to harm self or others or plans to break law (may include illicit substance use).	Free	Work and life stress. Minor mental health or substance use issues. Military specific issues.	Assessment, 12 individual counseling sessions per issue per year, referrals.
Community Mental Health (Metropolitan Development Council, Greater Lakes Mental Health Care, Catholic Community Services, Pacific Lutheran University, etc.) Call 211.	If private pay, except for plans to harm self or others. If using Tricare, less	Tricare or private pay with sliding fee scales	Alcohol and other substance use issues. Mental health.	Assessment, detox, counseling, education, groups, inpatient treatment, medication.

12 Step Meetings (Alcoholics Anonymous, etc.) aa.org Tacoma 253-474-8897		Free	Alcohol and other substance use issues.	Support groups at numerous locations and online. Sponsors.
Madigan Army Medical Center (MAMC) Behavioral Health (includes Departments of Psychology, Psychiatry, and Social Work. Also has Soldier Readiness Program where soldiers self-refer for behavioral health problems. (253) 968-2700	Records go into medical files.	Free	Mental health concerns including PTSD, depression, anxiety, and more.	Assessment, medication, inpatient or outpatient treatment, 24 hour emergency care. Same day walk-in appointments available (0800-1400, M-F).
Info and Crisis Lines **Suicide Prevention**: 1-800-273-8255 (TALK) **Crisis Line**: 1-800-576-7764 **Resources and referrals: 2-1-1** or 1-877-211-WASH Washington State Alcohol and Drug Helpline: 1-800-562-1240.	except for plans to harm self or others.	Free	Suicidal thoughts or any other crisis. Seeking resources.	Information and referrals. Crisis intervention. Suicide prevention.
Websites (afterdeployment.org smartrecovery.org, militarymentalhealth.org, dcoe.health.mil, etc.)	.	Free	All substance use issues. Mental health. Military issues.	Self assessment, information and education. Blogs, online support groups.

4.5.1 Alcohol Treatment and Education Pilot (CATEP)

Pilot, what does that mean?

This means that it is a new program that is being evaluated for expansion. It started last year on several posts and is now being expanded due to positive results.

Who goes to CATEP?

This is only for soldiers who refer themselves for problems with alcohol and haven't gotten into trouble for it officially (such as DUI).

Howl is it?

Command is not notified of participation. Records will not go into personnel files and will not impact one's career.

Records do go in medical records but is restricted information only for those who need to know. Examples of people who would need to know include mental health providers and other medical treatment providers. It has to go in medical record because substance use can impact a person's health and treatment.

Treatment is offered during off-duty hours, so it can be used without informing command. It is held in a separate building from the Army Substance Abuse Program to enhance

What does treatment involve?

Treatment options include evaluation, groups, education, and individual counseling. Participants are encouraged to attend twelve step meetings in addition to CATEP program. Couples work and medication management are also available.

What is therapy like?

Therapy also uses a cognitive approach, meaning it helps you look at your thoughts, feelings and behaviors in new ways. CATEP bases its approach on the Seeking Safety model.

Seeking Safety model?

Seeking Safety is a cognitive-based therapy that specifically targets the unique problems that result from struggling with both drug/alcohol and PTSD issues.

It teaches people with PTSD and substance use problems a number of different coping skills, including learning how to ask others for help, recognizing warning signs or high-risk situations for drug/alcohol use, self-care, and coping with PTSD symptoms.

It is present-focused and does not require delving into traumatic events.

What are groups like?

Groups cover a different topic every week with twelve different concept areas. Groups provide support and education on the physical, emotional and social impact of alcohol. All ranks are mixed together. However, there is a group that is just for women.

What if a soldier has other issues in addition to alcohol?

If you have problems with drugs other than alcohol, CATEP will address the alcohol. For other drugs you will be referred to other programs, although there is some discussion of expanding the program.

CATEP will address alcohol and mental health together. Providers are trained to treat both. Psychiatrists are on staff and can treat with medications as needed.

How long does treatment take?

The average person is involved for about two months but participants may attend for up to a year.

Other than, how is CATEP different from ASAP (Army Substance Abuse Program)?

Participants typically self-refer, while the vast majority of ASAP participants are already in trouble and required to attend.

The soldier can quit CATEP at any time without consequences.

4.5.2 Army Substance Abuse Program (ASAP)

ASAP is part of the Behavioral Health service line of Madigan and is located on Joint Base Lewis McChord. It addresses all substance use and related issues.

Who goes to ASAP?

The vast majority of soldiers attending ASAP are there because others urged or required it. Many soldiers enter treatment after having experienced problems such as DUIs, positive urine analysis tests, or poor work performance. Additionally, some get help based on strong recommendations from family members or a doctor. Soldiers are encouraged to refer themselves for treatment if they feel they have a problem and could benefit from changing their substance use.

What happens when you go there?

First the soldier will have an assessment to see what level of treatment is required.

A soldier who does not need treatment but could benefit from more education about the risks of substance use will attend the educational program. The two day program, Prime for Life, helps prevent problems in the future by exploring how their values and behaviors do or don't match.

Soldiers who need more support attend Prime for Life as well as participating in an individualized treatment plan. This may include detox, inpatient treatment, group therapy, support groups such as AA, and individual counseling.

ASAP works with psychiatrists and other medical providers when soldiers have related medical issues such as pain and insomnia.

For those needing a higher level of care, intensive outpatient treatment is an option. This typically involves treatment three hours per day, three days per week for about a month. Work schedules can be shifted to accommodate.

Isn't this going to affect my career?

It's true that this is not reatment. Your command signs off on your treatment plan, is involved in treatment meetings, and signs off on your discharge from the program.

However, as long as you successfully complete treatment, it doesn't impact your career or promotion or deployment. Chaplains and your counselor can be good advocates if you run into problems in this area. Also your command can't prevent you from getting treatment or penalize you for it.

Once you are involved in ASAP, even if you refer yourself, you are required to follow treatment recommendations or it could have a negative impact on your career.

In other words, it isn't having a substance abuse issue that affects your career. It's not taking steps to address the issue that causes problems.

4.5.3 Military One Source

What is Military OneSource?

Military One Source is a resource available to service members and their families 24 hours a day, offering free support and information on a wide variety of issues.

What do they offer?

Military One Source offers assessments and referrals for short term non-medical problems. This can be a bit of a gray area at times, such as alcohol abuse which can be medical or not depending on the severity. However, even if MOS does not address your particular issue, they will be able to get you the information and assistance you need.

Master's level counselors will provide an assessment over the phone then do the research to find a service that fits your needs. They get back to you within three days.

You can have 12 free sessions per issue with the provider. Usually these are face-to-face sessions but there are options for phone and online sessions as well.

Who are the providers?

Providers are civilian therapists who are contracted with the military. In order to get these contracts, the providers are researched by the military to make sure they are high quality.

How is it?

While MOS is recommended for people concerned about consultants and providers do have limits to

They have a duty to report the following:

1. Family maltreatment (spouse, child, elder abuse)
2. Threats of harm to self or others

These reports are made to the appropriate military and civilian authorities (usually the chain-of-command, MP's etc). Since face-to-face counselors are an extension of MOS, these reporting requirements apply to them as well.

Substance or alcohol abuse is disclosed only in these situations:

1. The service member self reports drug abuse as it is illegal under DoD regulations.
2. The service member self reports alcohol abuse that is related to domestic violence perpetrated by the Service Member.
3. The family member self reports drug or alcohol abuse that is related to abuse/neglect of a child or special needs family member.

4.5.4 Support Groups

4.5.4.1 Alcoholics Anonymous (AA)

AA is a fellowship of people with alcohol use issues who meet to support each other in reaching and maintaining sobriety. It follows a program based on the "Big Book," the Twelve Steps, and the Twelve Traditions.

There is a Twelve Step group for almost any addiction-related problem you can think of, including Cocaine (CA), Marijuana (MA), Narcotics (NA), Gambling (GA), even adult children of alcoholics (ACA).

There are many different types of meetings:

1. Open meetings are open to any interested person.
2. Closed meetings are for alcoholics only, including newcomers.
3. Discussion meetings where the leader introduces a topic and any participant can comment or even change the topic.

4. Big Book and Step Study Meetings which study and discuss a section of the “Big Book of AA” or the 12 Steps or 12 Traditions.
5. Speaker meetings where a speaker has been arranged ahead of time, usually someone with at least one year of sobriety, who tells his or her story.
6. Each meeting is different from the next and many people find that they want to attend a few before choosing the one where the feel most comfortable.

What does it cost?

AA is fully supported by its members. You may put a dollar or two in the collection basket but there’s no pressure.

What are all these “Twelves” about?

There are the 12 Steps, 12 Traditions, and 12 Promises, the foundation of AA, along with the Big Book.

The 12 Steps list personal development tasks that are meant to be worked in order as a process of getting rid of addictive behaviors.

The 12 Traditions state how AA maintains its unity and how it relates to the world.

AA also has the 12 Promises, which lists the positive changes you will experience by following the 12 Step program.

What is the Big Book?

This is the book that started it all. Written by Bill Wilson, or Bill W. in the 1930s, it is still the centerpiece of the AA program.

What is a sponsor?

Anyone who is seriously participating in AA is encouraged to get a sponsor. This person serves as a mentor as you progress through the 12 Steps and beyond. You choose a sponsor by looking for someone you can look up to and have good communication with. The sponsor relationship varies widely. Some may be more formal and assign reading homework while others are more informal. The participant is supposed to call the sponsor if tempted to drink (or for any other problems).

What if I’m not religious?

AA refers to God quite frequently. People who are not religious may find this to be a deterrent. However, most meetings are open to any interpretation of God and spirituality. It is not intended to be religious.

AA does feel it's important to relate to something that is a power greater than the individual. For some this could be the AA community. In larger cities you may even find AA meetings specifically for atheists or agnostics.

Is AA an abstinence only program?

The goal for AA is abstinence. AA states the desire to stop drinking is a requirement for AA participation. However, individual meetings vary in how strictly this is interpreted. For most meetings, a sincere concern about drinking and interest in learning more is absolutely acceptable.

Is AA the only way?

Many people who believe in AA are convinced it is the only way to attain sobriety. While AA is effective and even necessary for many people, there are other ways that people quit or reduce drinking.

4.5.4.2 SMART Recovery is one alternative to AA.

SMART Recovery is one alternative to AA. Its goals are similar to AA but it is different in several important ways:

1. It is based on research of what is effective, specifically cognitive behavioral therapy strategies.
2. It is not religious or spiritual.
3. It sees addiction as a dysfunctional behavior rather than a disease.
4. It does not believe in defining yourself as alcoholic or as powerless over alcohol.

Again, the main message here is that there is something out there for everyone.

4.6 WCU PROTOCOL: REQUESTS FOR *REFERRALS TO TREATMENT* DURING THE INTERVENTION

4.6.1 MET Condition

If interest in treatment is expressed early in the intervention, while it might be tempting to jump to problem-solving options, it is still important for the counselor to use MI strategies, including exploring reasons for treatment, developing discrepancy, eliciting and reinforcing change talk, and affirming efforts, to better understand their individual situation and strengthen commitment to change.

If, as may be more common, the exploration of resources comes at the end of the intervention, the counselor should incorporate information shared throughout the session and strategies mentioned above while exploring the most relevant resources. All of this should be done continuing the spirit of the session which is personalized and respectful of where the person is and they want for themselves. The counselor can explore with the client various characteristics they want or don't want in treatment, what has worked in the past, or concerns they may have about programs. As he client's interest dictate,

sharing a menu of options or a thorough discussion of one or more of the resource options is appropriate and encouraged.

4.6.2 EdCon Condition

If the client expresses interest in treatment referrals the counselor should respond in an informational and didactic style. The counselor should avoid personalized discussions about the individual's use or reasons for treatment with the client. Counselor and client may review and discuss the resource information included in the education packet. Depending on the client's interest, the discussion may be brief or more detailed, but should be delivered in an educational style.

4.7 TREATMENT AND SUPPORT OPTIONS

There are many options for the service member who wants help quitting or cutting back on substance use. Which options do you know about already?

In many ways it's a good thing there are so many options because one size does not fit all. Each organization and each counselor is different from the next and it may take more than one try to find the right solution for you.

In some ways it is too much of a good thing, too many options making the decision overwhelming.

It is useful to have some idea of what you want as well as an idea of what is available. What is important to you as you consider options?

4.7.1 Some of the things that people consider when looking for treatment:

Costs. Costs range from free services offered by the Army to private pay in the community and everything in between. How concerned are you about cost?

This is a common concern, especially in the military. It's important to note there are different levels of ranging from only with limits regarding harm to self and others, to command signing off on treatment plans. What level of are you seeking?

Location. Some people are more interested in finding the closest, most convenient locations while others are interested in going as far away as possible to minimize the chances of seeing people they know. Some people may choose only online support. How about you?

Military-affiliated or not. Some people may prefer to seek services from the military while others may prefer those that are not affiliated with the military. What is your preference?

Issues addressed. Different organizations and therapists specialize in different things. Sometimes you will find substance abuse and mental health addressed together but other times they are separate. It's good to know about a counselor's areas of specialization and limits of experience. If seeking services not affiliated with the military it is a good idea to ask about their experience working with military or other relevant issues.

4.7.1.1 Services offered.

Some places offer the whole range of services while some focus on one, such as individual or group counseling. Generally the first step is an assessment and then other services are recommended based on the assessment. Services may include:

Individual Counseling. Meetings between just you and your counselor. They usually last about an hour and may include learning new ways of looking at things and learning new skills. Sometimes couples or family counseling is available as well.

Groups. Many programs offer groups, such as support groups, educational groups, group therapy, etc. Groups are usually lead by a counselor and group members are people working on similar issues.

Medication Management. Medications may be useful for substance related and underlying issues such as detox, pain, sleep, mood, etc.

Detox. Medically supervised withdrawal that requires staying in a facility for several days)

Inpatient Services (vs. Outpatient). Inpatient is treatment in a hospital or facility. It can be short term to detox or stabilize or longer term treatment, also known as rehab. Longer term can be several months.

Crisis Intervention. There are a number of places you can call in a crisis. What is considered a crisis? (Thoughts or actions of harm to self or others, overdose, loss of emotional control, etc.)

4.7.1.2 Therapist's Experience

Another important factor is the experience of the therapist. What is his/her background and approach? Listen for treatments that are shown to be effective, i.e. "evidence-based" or "best practice." This includes:

Cognitive Behavioral Therapy (CBT). Looks at the interaction between thoughts, behaviors and emotions and helps identify new ways to look at things. CBT is useful for both substance abuse and mental health concerns. There are many different types of CBT.

Mindfulness. Involves the practice of attention to and awareness of the present moment, and nonjudgmental acceptance. Awareness of the present involves observing thoughts, feelings, and sensations by focusing one's attention on the current moment without judging it.

Motivational Interviewing or Motivational Enhancement Therapy (MI or MET). An approach to therapy that helps people look at their values and goals and how their behavior does or does not match. It has been shown to be effective in motivating people to make positive lifestyle changes.

4.7.2 PTSD Treatment

Many people in the military have symptoms of PTSD. There are therapies that have been shown to decrease these symptoms in about twelve sessions:

Cognitive Processing Therapy (CPT). A type of CBT that helps you learn how going through a trauma changed the way you look at the world, yourself, and others. The way we think and look at things directly affects how we feel and act.

Prolonged Exposure (PE). A type of CBT that helps you approach trauma-related thoughts, feelings, and situations that you have been avoiding due to the distress they cause. Repeated exposure to these thoughts, feelings, and situations helps reduce the power they have to cause distress.

Eye Movement Desensitization Reprocessing (EMDR). Involves moving your eyes in certain ways while thinking about traumatic event. While EMDR has been shown to be effective, recent research is showing that the eye movements may not be necessary.

The Warrior Check-Up

PERSONALIZED FEEDBACK REPORT

Contents

WARRIOR CHECK-UP ASSESSMENT TOOL

ALCOHOL USE

1 Drink = 12 ounce bottle/can of beer = 5 ounce glass of wine = 1 shot of hard alcohol

1) Consider a typical week during the past 30 days. How much alcohol, (measured in number of drinks), do you think the **average civilian man/woman** drinks on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

2) How many drinks do you think the **average civilian [man or woman]** consumes on a given occasion?

Number of drinks ___ ___

3) Consider a typical week during the past 30 days. How much alcohol, (measured in number of drinks), do you think **the average military person in the [Army or Air Force]** drinks on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

4) How many drinks do you think the **average military person in the [Army or Air Force]** consumes on a given occasion?

Number of drinks ___ ___

1 Drink = 12 ounce bottle/can of beer = 5 ounce glass of wine = 1 shot of hard alcohol

5) Consider a typical week during the past 30 days. How much alcohol, on average (measured in number of drinks), do you drink on each day of a typical week?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

6) Consider a typical week during the past 30 days. Over how many hours do you drink the above number of drinks?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

7) How many drinks on average have you consumed on a given occasion during the past 30 days?

Number of drinks ___ ___

8) Think of the occasion you drank the most during the past 30 days. How much did you drink?

Number of drinks ___ ___

9) Think of the occasion you drank the most during the past 30 days. How many hours did you spend drinking on that occasion?

Number of hours ___ ___

DRINKING MOTIVES

Below is a list of reasons people sometimes give for drinking alcohol. Thinking of all the times you drink, how often would you say you drink for each of the following reasons? Please indicate your response next to each item according to the following scale.

1	2	3	4	5
Never/almost never	Some of the time	Half the time	Most of the time	Almost always/always

	Never/ Almost Never	Some of the Time	Half the time	Most of the time	Almost always/ Always
10) To forget your worries.	1	2	3	4	5
11) Because your friends pressure you to drink.	1	2	3	4	5
12) Because it helps you enjoy a party.	1	2	3	4	5
13) Because it helps you when you are feeling nervous	1	2	3	4	5

14) Because it helps you when you are feeling depressed.	1	2	3	4	5
15) To be sociable.	1	2	3	4	5
16) To cheer you up when you are in a bad mood.	1	2	3	4	5
17) Because you like the feeling.	1	2	3	4	5
18) So that others won't kid you about not drinking.	1	2	3	4	5
19) To stop you from feeling so hopeless about the future.	1	2	3	4	5
20) To reduce your anxiety.	1	2	3	4	5
21) Because it's exciting.	1	2	3	4	5
22) To get high.	1	2	3	4	5
23) Because it makes social gatherings more fun.	1	2	3	4	5
24) To numb your pain.	1	2	3	4	5
25) To fit in with a group you like.	1	2	3	4	5
26) Because it gives you a pleasant feeling	1	2	3	4	5
27) To turn off negative thoughts about yourself.	1	2	3	4	5
28) Because it improves parties and celebrations.	1	2	3	4	5
29) Because it makes you feel more self-confident or sure of yourself.	1	2	3	4	5
30) To celebrate a special occasion with friends.	1	2	3	4	5
31) To relax.	1	2	3	4	5
32) To stop you from dwelling on things.	1	2	3	4	5
33) Because it's fun.	1	2	3	4	5
34) To be liked.	1	2	3	4	5
35) To help you feel more positive about things in your life.	1	2	3	4	5
36) So you won't feel left out.	1	2	3	4	5
37) To forget painful memories.	1	2	3	4	5

CONSEQUENCES OF DRINKING

During the past ____ days, have you experienced any of the following problems because of alcohol use?

38) I have been unhappy because of my drinking.	Yes	No
39) Because of my drinking, I have not eaten properly.	Yes	No
40) I have failed to do what is expected of me because of my drinking.	Yes	No
41) I have felt guilty or ashamed because of my drinking.	Yes	No
42) I have taken foolish risks when I have been drinking.	Yes	No
43) When drinking, I have done impulsive things that I regretted later.	Yes	No
44) My physical health has been harmed by my drinking.	Yes	No
45) I have had money problems because of my drinking.	Yes	No
46) My physical appearance has been harmed by my drinking.	Yes	No
47) My family has been hurt by my drinking.	Yes	No
48) A friendship or close relationship has been damaged by my drinking.	Yes	No
49) My drinking has gotten in the way of my growth as a person.	Yes	No
50) My drinking has damaged my social life, popularity, or reputation.	Yes	No
51) I have spent too much or lost a lot of money because of my drinking.	Yes	No
52) I have had an accident while drinking or intoxicated.	Yes	No
53) I did not get promoted because of my drinking.	Yes	No
54) I got a lower score of efficiency report or performance rating because of my drinking.	Yes	No
55) I got called up during off duty hours and reported to work drunk or high because of my drinking.	Yes	No
56) I received Uniform Code of Military Justice punishment because of drinking.	Yes	No
57) I have spent time in jail, stockade, or brig because of my drinking.	Yes	No
58) I had a drop in my Physical Training Score because of drinking.	Yes	No

59) How much money did you spend in a typical week on alcohol? _____

DRUG USE

Here are a few questions about drugs. Please answer as correctly and honestly as possible by indicating which answer is right for you. (DUDIT)

60)	How often do you use drugs other than alcohol? (See list of drugs below)	☐ Never	☐ Once a month or less often	☐ 2-4 times a month	☐ 2-3 times a week	☐ 4 times a week or more often

LIST OF DRUGS

(Note! Not alcohol!)

Cannabis	**Amphetamines**	**Cocaine**	**Opiates**
Marijuana Hash Hash oil	Methamphetamine Phenmetraline Khat Betel nut Ritaline (Methylphenidate)	Crack Freebase Coca leaves	Smoked heroin Heroin Opium

Hallucinogens	**Solvents/inhalants**	**GHB and others**
Ecstasy LSD (Lisergic acid) Mescaline Peyote PCP, angel dust (Phencyclidine) Psilocybin DMT	Thinner Trichlorethylene Gasoline/petrol Gas Solution Glue	Anabolic steroids Laughing gas (Halothane) Amyl nitrate (Poppers) Anticholinergic compounds

PILLS – MEDICINES

Pills count as drugs when you take

- more of them or take them more often than the doctor has prescribed for you
- pills because you want to have fun, feel good, get ”high”, or wonder what sort of effect they have on you
- pills that you have received from a relative or a friend
- pills that you have bought on the ”black market” or stolen

SLEEPING PILLS/SEDATIVES		**PAINKILLERS**	
Alprazolam	Methaqualone	Actiq	Metadon
Amobarbital	Methohexital	Coccilana-Etyfin	Morfin

Apodorm	Mogadon	Citodon	Nobligan
Apozepam	Nitrazepam	Citodon forte	Norflex
Aprobarbital	Oxascand	Dexodon	Norgesic
Butabarbital	Pentobarbital	Depolan	Opidol
Butalbital	Phenobarbital	Dexofen	OxyContin
Chloral hydrate	Rohypnol	Dilaudid	OxyNorm
Diazepam	Secobarbital	Distalgesic	Panocod
Dormicum	Sobril	Dolcontin	Panocod forte
Ethcholorvynol	Sonata	Doleron	Paraflex comp
Fenemal	Stesolid	Dolotard	Somadril
Flunitrazepam	Stilnoct	Doloxene	Spasmofen
Fluscand	Talbutal	Durogesic	Subutex
Glutethimide	Temesta	Fentanyl	Temgesic
Halcion	Thiamyal	Ketodur	Tiparol
Heminevrin	Thiopental	Ketogan	Tradolan
Iktorivil	Triazolam	Kodein	Tramadul
Imovane	Xanor	Maxidon	Treo comp
Mephobarbital	Zopiklon		
Meprobamate			

Pills do NOT count as drugs if they have been prescribed by a doctor and you take them in the prescribed dosage.

61)	Do you use more than one type of drug on the same occasion?	☐ Never	☐ Once a month or less often	☐ 2-4 times a month	☐ 2-3 times a week	☐ 4 times a week or more often
62)	How many times do you take drugs on a typical day when you use drugs?	☐ 0	☐ 1-2	☐ 3-4	☐ 5-6	☐ 7 or more
63)	How often are you influenced heavily by drugs?	☐ Never	☐ Less often than once a month	☐ Every month	☐ Every week	☐ Daily or almost every day
64)	Over the past year, have you felt that your longing for drugs was so strong that you could not resist it?	☐ Never	☐ Less often than once a month	☐ Every month	☐ Every week	☐ Daily or almost every day
65)	Has it happened, over the past year, that you have not been able to stop taking drugs once you started?	☐ Never	☐ Less often than once a month	☐ Every month	☐ Every week	☐ Daily or almost every day

66)	How often over the past year have you taken drugs and then neglected to do something you should have done?	☐ Never	☐ Less often than once a month	☐ Every month	☐ Every week	☐ Daily or almost every day
67)	How often over the past year have you needed to take a drug the morning after heavy drug use the day before?	☐ Never	☐ Less often than once a month	☐ Every month	☐ Every week	☐ Daily or almost every day
68)	How often over the past year have you had guilt feelings or a bad conscience because you used drugs?	☐ Never	☐ Less often than once a month	☐ Every month	☐ Every week	☐ Daily or almost every day

69)	Have you or anyone else been hurt (mentally or physically) because you used drugs?	☐ No	☐ Yes, but not over the past year	☐ Yes, over the past year
70)	Has a relative or a friend, a doctor or a nurse, or anyone else, been worried about your drug use or said to you that you should stop using drugs?	☐ No	☐ Yes, but not over the past year	☐ Yes, over the past year

CONSEQUENCES OF DRUG USE

During the past ____ days, have you experienced any of the following problems because of drug use?		
71) I have been unhappy because of my drug use.	Yes	No
72) Because of my drug use, I have not eaten properly.	Yes	No
73) I have failed to do what is expected of me because of my drug use.	Yes	No
74) I have felt guilty or ashamed because of my drug use.	Yes	No
75) I have taken foolish risks when I have been using drugs.	Yes	No
76) When using drugs, I have done impulsive things that I regretted later.	Yes	No
77) My physical health has been harmed by my drug use.	Yes	No
78) I have had money problems because of my drug use.	Yes	No
79) My physical appearance has been harmed by my drug use.	Yes	No

80) My family has been hurt by my drug use.	Yes	No
81) A friendship or close relationship has been damaged by my drug use.	Yes	No
82) My drug use has gotten in the way of my growth as a person.	Yes	No
83) My drug use has damaged my social life, popularity, or reputation.	Yes	No
84) I have spent too much or lost a lot of money because of my drug use.	Yes	No
85) I have had an accident while intoxicated or high.	Yes	No
86) I did not get promoted because of my drug use.	Yes	No
87) I got a lower score of efficiency report or performance rating because of my drug use.	Yes	No
88) I got called up during off duty hours and reported to work high because of my drug use.	Yes	No
89) I received Uniform Code of Military Justice punishment because of drug use.	Yes	No
90) I have spent time in jail, stockade, or brig because of my drug use.	Yes	No
91) I had a drop in my Physical Training Score because of drug use.	Yes	No

92) How much money did you spend in a typical week on alcohol? _____

MILITARY STRESS

Consider the most stressful event you have experienced.

Here is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, and then indicate, using the numbers to the right, how much you have been bothered by that problem in the past month.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
93) Repeated, disturbing memories, thoughts, or images, of the stressful experience.	1	2	3	4	5
94) Repeated, disturbing dreams of the stressful experience.	1	2	3	4	5
95) Suddenly acting or feeling as if the stressful experience was happening again (as if you were reliving it).	1	2	3	4	5

	Not at all	A little bit	Moderately	Quite a bit	Extremely
96) Feeling very upset when something reminded you of the stressful experience.	1	2	3	4	5
97) Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience.	1	2	3	4	5
98) Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it.	1	2	3	4	5
99) Avoiding activities or situations because they reminded you of the stressful experience.	1	2	3	4	5
100) Trouble remembering important parts of the stressful experience.	1	2	3	4	5
101) Loss of interest in activities that you used to enjoy.	1	2	3	4	5
102) Feeling distant or cut off from other people.	1	2	3	4	5
103) Feeling emotionally numb or being unable to have loving feelings for those close to you?	1	2	3	4	5
104) Feeling as if your future will somehow be cut short.	1	2	3	4	5
105) Trouble falling or staying asleep.	1	2	3	4	5
106) Feeling irritable or having angry outbursts.	1	2	3	4	5
107) Having difficulty concentrating.	1	2	3	4	5
108) Being “super-alert” or watchful or on guard.	1	2	3	4	5
109) Feeling jumpy or easily startled.	1	2	3	4	5

DEMOGRAPHICS AND FAMILY HISTORY

110) What is your branch of service?

- ☐ Army
- ☐ Air Force
- ☐ Navy
- ☐ Marines

111) What is your gender?

- ☐ Male
- ☐ Female

112) How much do you weigh? _____lbs.

113) Who did you live with for the majority of the time when you were growing up?

- ☐ Two parents (together or separately)
- ☐ Single parents
- ☐ Relative
- ☐ Legal Guardian

114) When you were growing up, did your parent(s), relative or legal guardian…

a) Use alcohol excessively?

- ☐ Yes
- ☐ No

b) Use marijuana excessively?

- ☐ Yes
- ☐ No

c) Use any other drug excessively?

- ☐ Yes
- ☐ No

LIFE GOALS

We are interested in the things that you are trying to do or would like to accomplish in the future. In other words, the goals you have in different areas of your life.

Here are some examples of goals:

- **Trying to get along with others**
- **Trying to develop my spirituality**
- **Trying to help others in need of help**
- **Trying to seek new and exciting experiences**
- **Trying to avoid feeling inferior to others**
- **Trying to develop and maintain close relationships use or partner**
- **Trying to advance in my career**

Goals are things that you are "trying" to do, whether or not you are actually successful is not important. For example, you might "try to save money" without necessarily being successful.

These goals may be broad, such as "trying to make others happy" or more specific "trying to make my partner happy". Also note that goal can be either positive or negative. That is, they may be about something you typically try to get or keep, or things that you typically try to avoid or prevent. For example, you might typically try to obtain attention from others, or you might typically try to avoid calling attention to yourself.

You might find it useful to think about your goals in different domains of your life: work and school, home and family, social relationships, and leisure/recreation. Think about all of your desires, goals, wants, and hopes in these different areas.

Since you may have never thought of yourself in this way before, think carefully about what we are asking you to do before you write anything down. Remember this is about you and not about comparing yourself to others. Be as honest and as objective as possible.

List of goals	Rank
1.	
2.	
3.	

4.	
5.	

Instructions for Creating Personalized Feedback Report

Once the participant has completed the questionnaire, "PFR Instrument," open the PowerPoint document titled "PFR Template" to create his or her Personalized Feedback Report. Follow the instructions below to personalize each slide.

When completed, save/print the PowerPoint as a PDF. Note: If you will be printing the PFR on a black and white printer, select to save it in grayscale.

THE WARRIOR CHECK-UP

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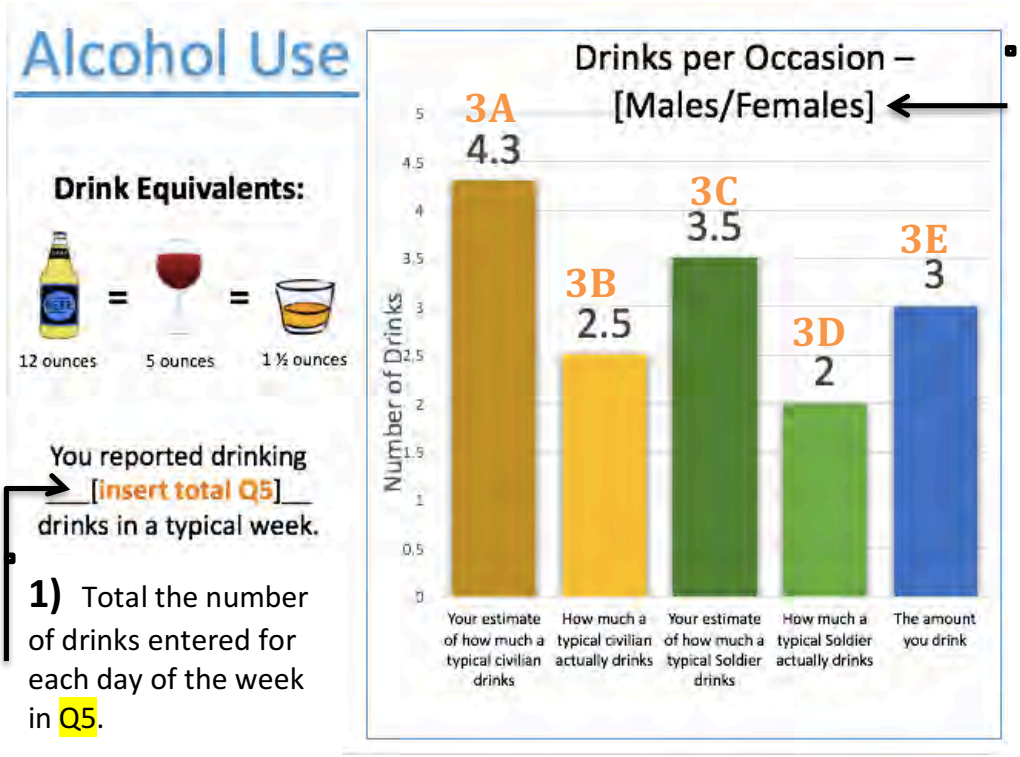
Slide 2: "Alcohol Use"

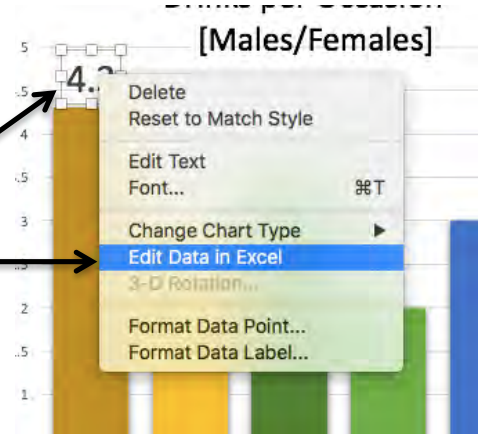


1) Total the number of drinks entered for each day of the week in Q5.

2) Select the respondent's gender (Q111) in the graph's title by deleting the gender they are not.

3) First, determine the values to be entered in the graph"

- 3A: Value entered in Q2
- 3B: Males: _____ Females: _____
- 3C: Value entered in Q4
- 3D: Males: _____ Females: _____
- 3E: Value entered in Q7



Second, enter these amounts into the graph.
Right-click on any of the numbers above a column in the graph.
Then, select "Edit Data in Excel"

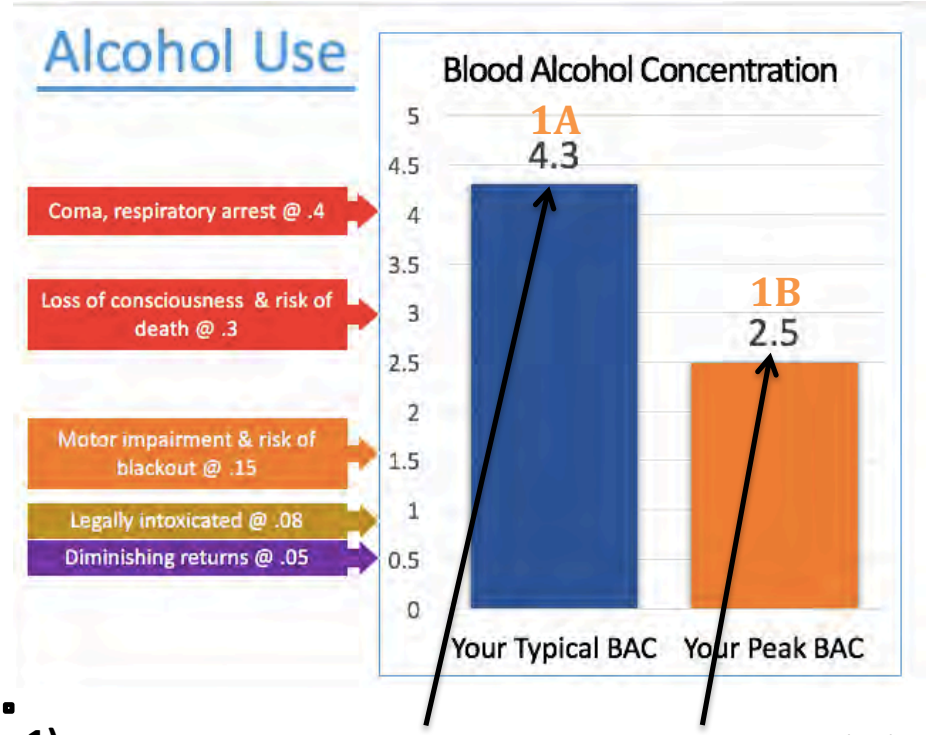
Excel should open to a small table of data, as below. Enter the numbers calculated above (3A – 3E)

B9 fx

	A	B	
1		Column1	
2	Your estimate of how much a typical civilian drinks	4.3	3A
3	How much a typical civilian actually drinks	2.5	3B
4	Your estimate of how much a typical Soldier drinks	3.5	3C
5	How much a typical Soldier actually drinks	2	3D
6	The amount you drink	3	3E
7			

The graph should adapt as you enter new numbers. Save and close the Excel file.

Slide 3: "Alcohol Use"



1) Gather the necessary variables for calculating Typical BAC (**1A**) and Peak BAC (**1B**).
To calculate BAC, you need four variables: DRINKS, HOURS, GENDER and WEIGHT.

	DRINKS	HOURS	GENDER	WEIGHT
Typical BAC (**1A**)	Sum of entries for Q5 divided by number of drinking days	Sum of entries for Q6 divided by number of drinking days	Q111 M= 0.58 F= 0.49	Q112
Peak BAC (**1B**).	Q8	Q9		

2) Calculate BAC using the following formula:

BAC = (DRINKS * (2.241 / (WEIGHT * GENDER)) – (0.017 * HOURS)

For example, if DRINKS = 8, HOURS = 3, GENDER = Male and WEIGHT = 175.

BAC = (DRINKS * (2.241 / (WEIGHT * GENDER)) – (0.017 * HOURS)

BAC = (8 * (2.241 / (175 * 0.58)) – (0.017 * 3)

BAC = (8 * (2.241 / (101.5)) – (0.017 * 3)

BAC = (8 * 0.022) – (0.017 * 3)

BAC = (0.1766) – (0.017 * 3)

BAC = (0.1766) – (0.051)

BAC= 0.126

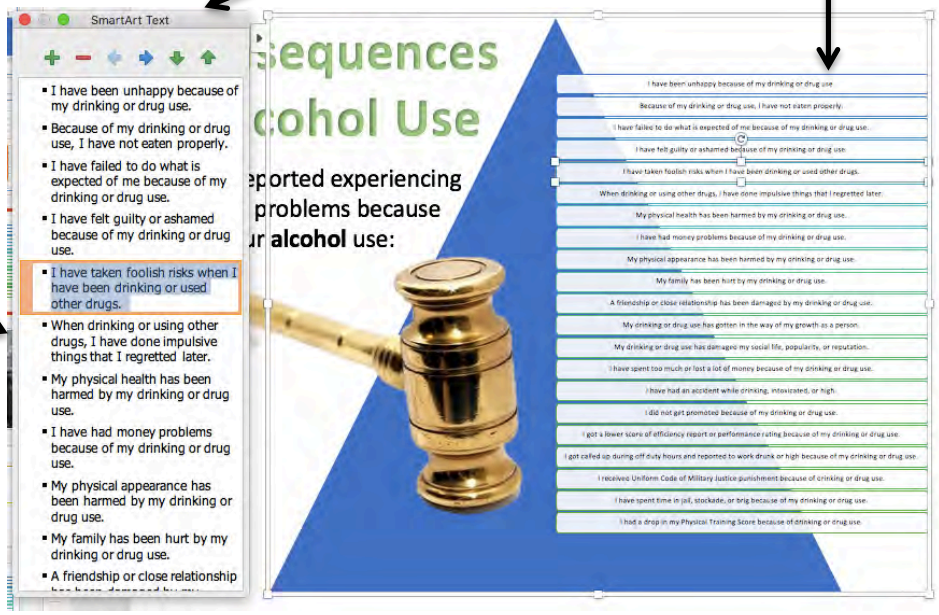
You will then adjust the bar graph as you did on Slide 2.

Slide 4: “Consequences of Alcohol Use”

1) Place your cursor over the list at the right of the screen, and right-click to bring up the *SmartArt* Text box.

2) Refer to questions **Q38 – Q52**.

Highlight the consequences in the *SmartArt Text* box for which the respondent **endorsed NO**, and **delete them**.



3) Close out *SmartArt Text* box. List on right should resize when items are deleted.

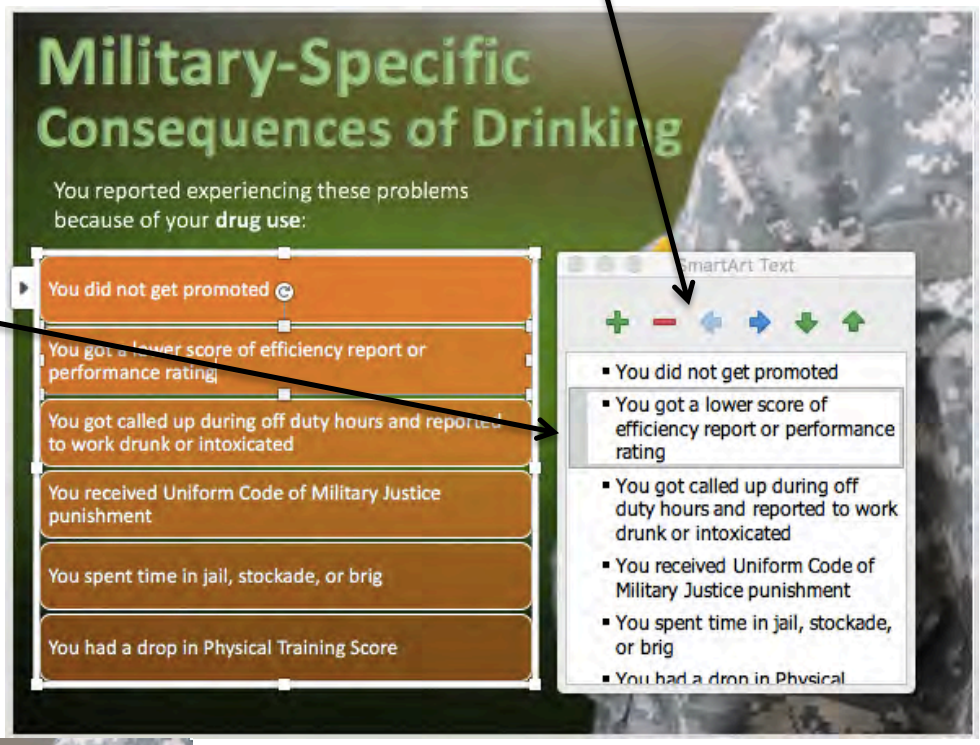
Slide 5: "Military-Specific Consequences" Drinking

Note: These are the same procedures as in the previous slide (#4).

1) Place your cursor over the list at the right of the screen, and right-click to bring up the *SmartArt* Text box.

2) Refer to questions **Q53 – Q58**.

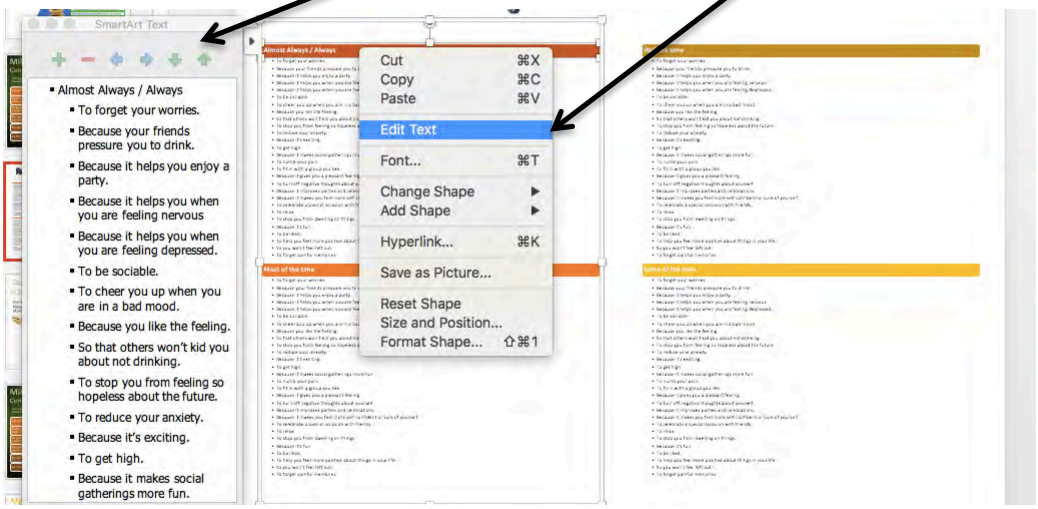
Highlight the consequences in the *SmartArt Text* box for which the respondent **endorsed NO**, and **delete them**.



3) Close out *SmartArt Text* box. Then, the list should resize when items are deleted.

Slide6: “Reasons You Drink Alcohol”

1) Place your cursor over the list at the right of the screen, and right-click to bring up the *SmartArt* Text box, or select “Edit Text”



2) Refer to **Q10 – Q37** to determine which reasons should be under each frequency. It may be easiest to first select the reasons that should remain under each frequency and highlight them or put them in bold, then go back and erase the ones you did not highlight/make bold.

3) Close out *SmartArt Text* box. Then, the list should resize when items are deleted.

Slide 7: "Consequences of Drug Use"

- If Client **has NOT endorsed drug use**, delete this slide.

  If Client **has endorsed drug use**, follow the same procedures as you did for slide 4. Refer to **Q71-Q85** for which consequences to select.

Slide 8: "Military-Specific Consequences" Drug Use

- If Client **has NOT endorsed drug use**, delete this slide.

  If Client **has endorsed drug use**, follow the same procedures as you did for slide 5. Refer to **Q86-Q91** for which consequences to select.

Slide 9: “Money Spent”

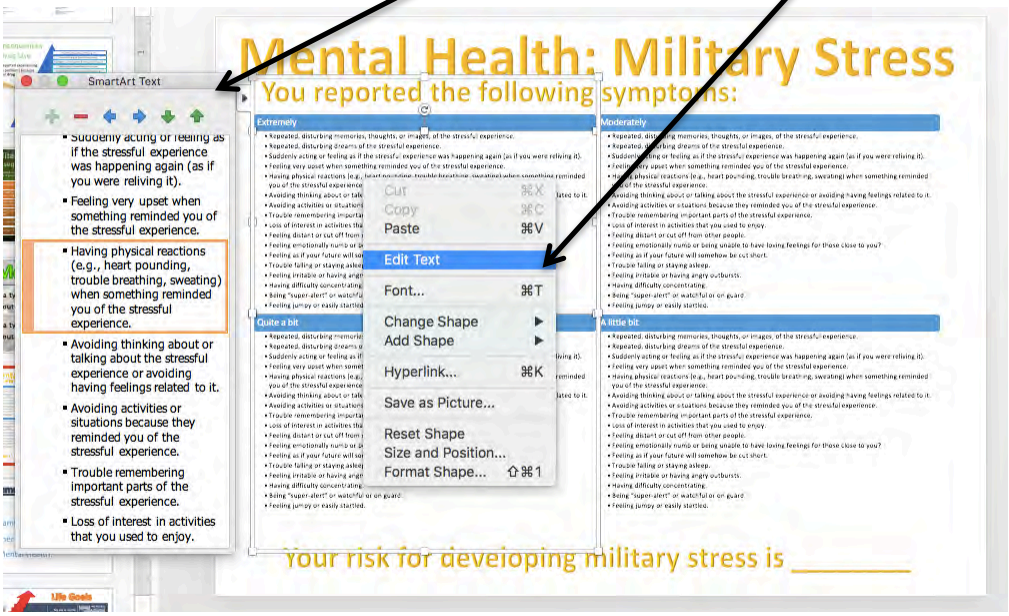
1) Refer to **Q59** to for the amount of money spent on alcohol in a typical week. Multiply that number by 4 and enter it here.

2) Refer to **Q92** to for the amount of money spent on drug of choice in a typical week. Multiply that number by 4 and enter it here.

Slide10: “Mental Health – Military Stress”

Preparation of this slide is similar to Slide 6.

1) Place your cursor over the list at the right of the screen, and right-click to bring up the *SmartArt* Text box, or select “Edit Text”

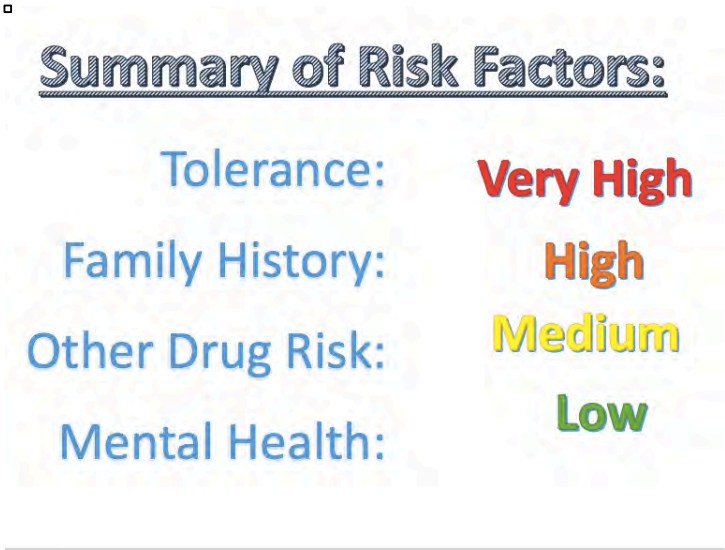


2) Refer to **Q93 – Q109** to determine which reasons should be under each intensity (Extremely, Quite a Bit, Moderately or A Little Bit). It may be easiest to first select the reasons that should remain under each intensity and highlight them or put them in bold, then go back and erase the ones you did not highlight/make bold.

3) Close out *SmartArt Text* box. Then, the list should resize when items are deleted.

Slide11: "Summary of Risk Factors"

1) First, assess level of risk for each section (Tolerance, Family History, Other Drug Risk, and Mental Health) according to the instructions below.
You will then select the word objects (Very High, High, Medium, and Low) at right to indicate level of risk. Drag the words representing level of risk to each category. Cut and paste if you need to use a risk level object more than once. Delete the unused risk level words.



2) Tolerance is based on Peak Blood Alcohol Concentration (BAC).
Use PEAK BAC as calculated for Slide 3.

Peak BAC	**Tolerance** Risk
0 – 0.06	**Very High**
0.061 – 0.120	**High**
0.121 – 0.180	**Medium**
0.181 +	**Low**

3) Family history is based on Questions 113 and 114

Family History	**Family History** Risk
If parent (Q113) used 2 or more substances (Q114: YES on two of a, b, c)	**Very High**
If parent (Q113) used 1 substance (Q114: a, b, and/or c = YES)	**High**
If non-parent (Q113) used 1 or more substances (Q114: a, b, and/or c = YES)	**Medium**
If no use in household growing up (Q114 a, b, & c = no, 0)	**Low**

4) Mental Health Risk is based on PCL Score: Add all values circled in questions **Q93 – Q109** to get a total PCL score.

PCL Score	**Mental Health** Risk
> 34	**High**
26-33	**Medium**
< 25	**Low**

5) Other Drug Risk is based on DUDIT Score. Response values are not included in the assessment instrument, so use the key below to calculate total score.

60	How often do you use drugs other than alcohol? (See list of drugs below)	**0**	**1**	**2**	**3**	**4**
		Never	Once a month or less often	2-4 times a month	2-3 times a week	4 times a week or more often
61	Do you use more than one type of drug on the same occasion?	**0**	**1**	**2**	**3**	**4**
		Never	Once a month or less often	2-4 times a month	2-3 times a week	4 times a week or more often
62	How many times do you take drugs on a typical day when you use drugs?	**0**	**1**	**2**	**3**	**4**
		0	1-2	3-4	5-6	7 or more
63	How often are you influenced heavily by drugs?	**0**	**1**	**2**	**3**	**4**
		Never	Less often than once a month	Every month	Every week	Daily or almost every day
64	Over the past year, have you felt that your longing for drugs was so strong that you could not resist it?	**0**	**1**	**2**	**3**	**4**
		Never	Less often than once a month	Every month	Every week	Daily or almost every day
65	Has it happened, over the past year, that you have not been able to stop taking drugs once you started?	**0**	**1**	**2**	**3**	**4**
		Never	Less often than once a month	Every month	Every week	Daily or almost every day
66	How often over the past year have you taken drugs and then neglected to do something you should have done?	**0**	**1**	**2**	**3**	**4**
		Never	Less often than once a month	Every month	Every week	Daily or almost every day
67	How often over the past year have you needed to take a drug the morning after heavy drug use the day before?	**0**	**1**	**2**	**3**	**4**
		Never	Less often than once a month	Every month	Every week	Daily or almost every day
68	How often over the past year have you had guilt feelings or a bad conscience because you used drugs?	**0**	**1**	**2**	**3**	**4**
		Never	Less often than once a month	Every month	Every week	Daily or almost every day
69	Have you or anyone else been hurt (mentally or physically) because you used drugs?	**0**		**2**		**4**
		No		Yes, but not over the past year		Yes, over the past year
70	Has a relative or a friend, a doctor or a nurse, or anyone else, been worried about your drug use or said to you that you should stop using drugs?	**0**		**2**		**4**
		No		Yes, but not over the past year		Yes, over the past year

Sum all responses to get total score.

DUDIT Score		**Other Drug** Risk
Female: > 2	Male: > 6	**High**
Female: 1 or 2	Male: 1-6	**Medium**
Female: 0	Male: 0	**Low**

Slide12: “Life Goals”

Life Goals

My Goals:	My use of alcohol and other drugs affects this goal:	Reducing my Alcohol and other drugs use would affect this goal:
[Goal 1]	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively
[Goal 2]	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively
[Goal 3]	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively
[Goal 4]	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively
[Goal 5]	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively	☐ Very Positively ☐ Positively ☐ Neutral ☐ Negatively ☐ Very Negatively

1) Insert participant’s stated goals, from the LIFE GOALS section of the instrument, in their rank order of importance (right column of Life Goals response table).

THE WARRIOR CHECK-UP

Personal Feedback Report

This report has been prepared specifically for you. It summarizes some of the information you have shared with us during our recent conversations.

As we review it together, please ask any questions that come to mind, make corrections if you spot any errors, and offer comments.

INNOVATIVE PROGRAMS RESEARCH GROUP
UNIVERSITY of WASHINGTON
School of Social Work

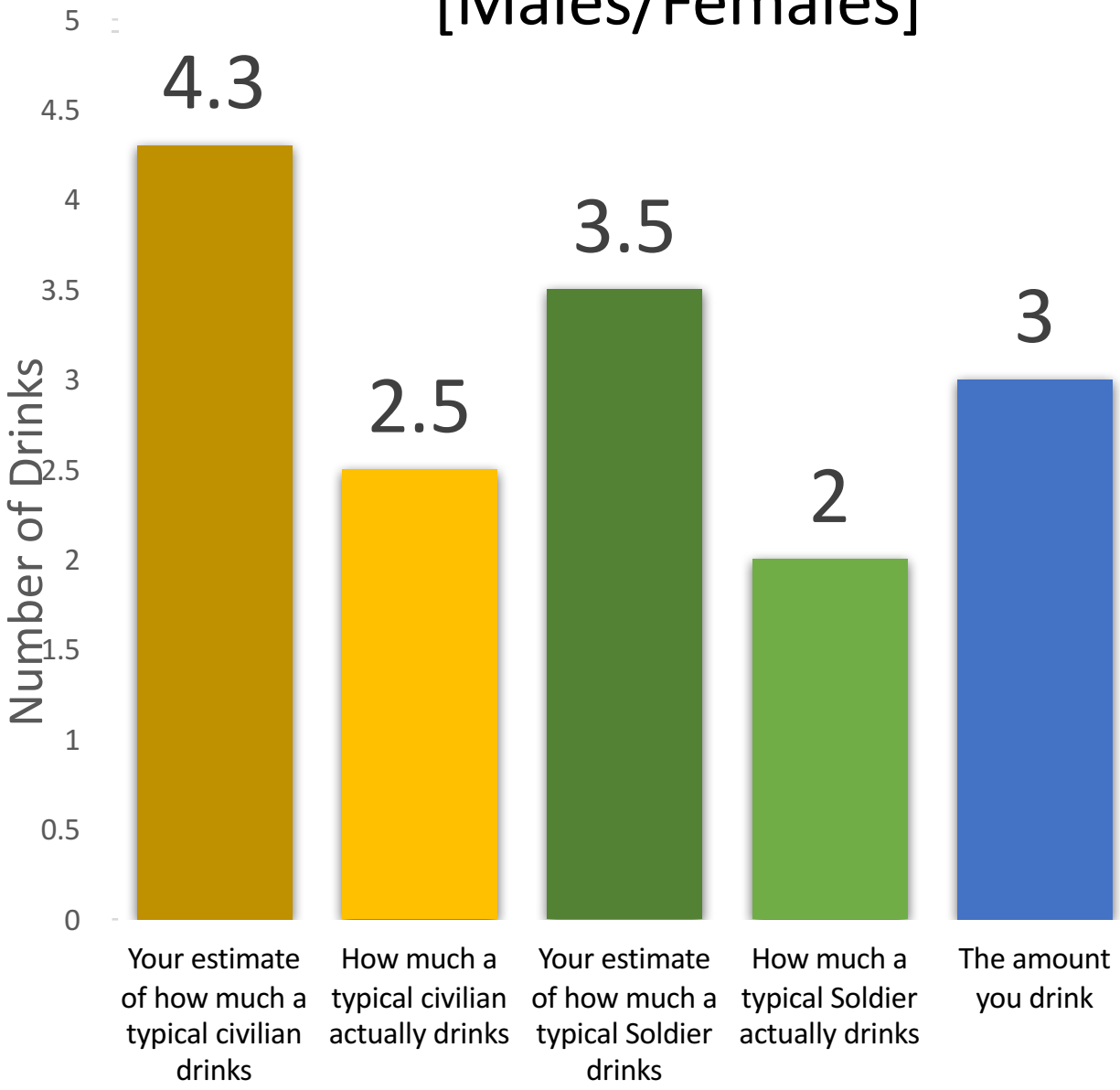
Alcohol Use

Drink Equivalents:

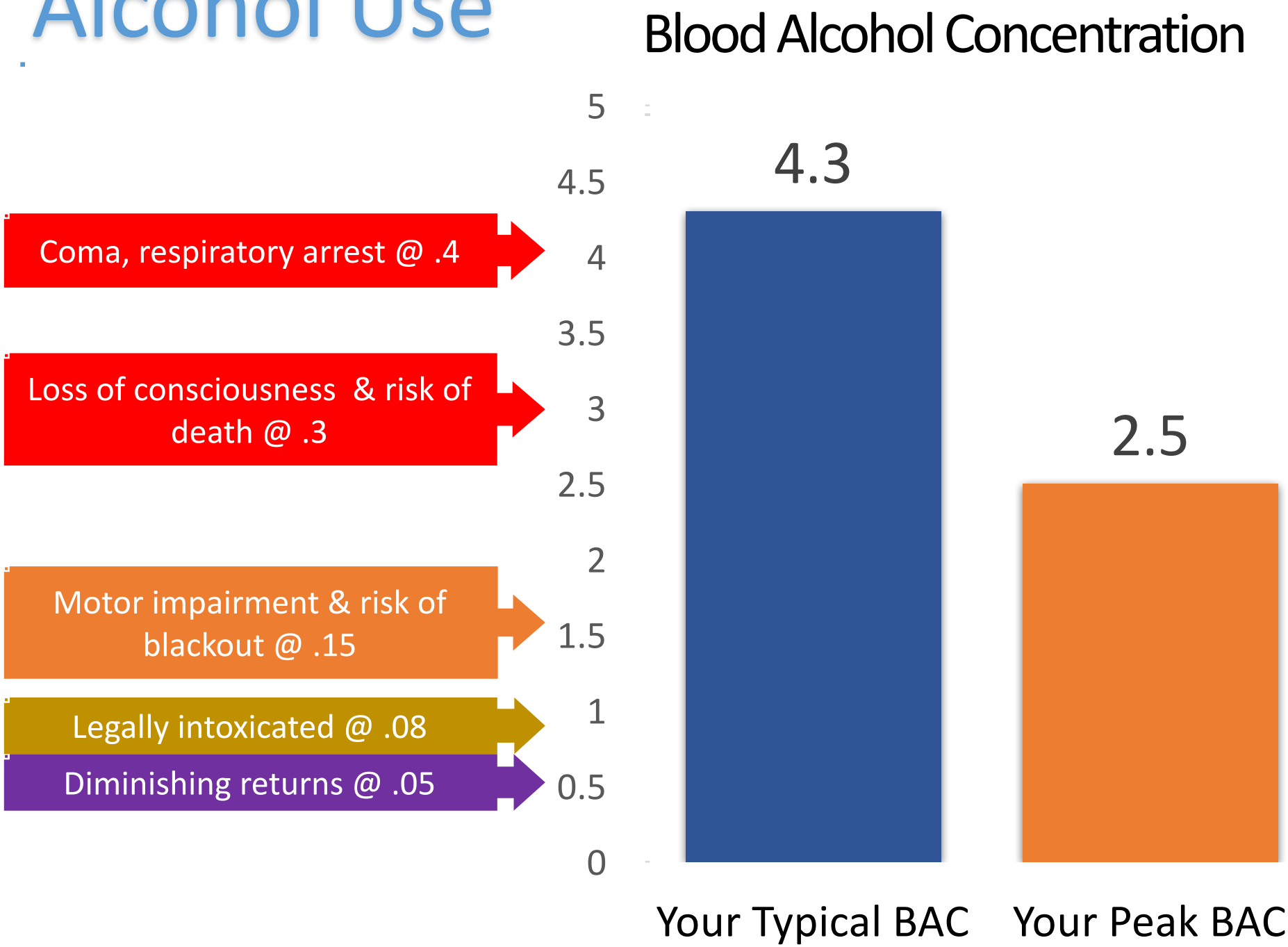
12 ounces | 5 ounces | 1 ½ ounces

You reported drinking ___[**insert total Q5**]__ drinks in a typical week.

Drinks per Occasion – [Males/Females]



Alcohol Use


Blood Alcohol Concentration
Coma, respiratory arrest @ .4
Loss of consciousness & risk of death @ .3
Motor impairment & risk of blackout @ .15
Legally intoxicated @ .08
Diminishing returns @ .05
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
4.3
2.5
Your Typical BAC
Your Peak BAC

Consequences of Alcohol Use

You reported experiencing these problems because of your **alcohol** use:

- I have been unhappy because of my drinking.
- Because of my drinking, I have not eaten properly.
- I have failed to do what is expected of me because of my drinking.
- I have felt guilty or ashamed because of my drinking.
- I have taken foolish risks when I have been drinking.
- When drinking, I have done impulsive things that I regretted later.
- My physical health has been harmed by my drinking.
- I have had money problems because of my drinking.
- My physical appearance has been harmed by my drinking.
- My family has been hurt by my drinking.
- A friendship or close relationship has been damaged by my drinking.
- My drinking has gotten in the way of my growth as a person.
- My drinking has damaged my social life, popularity, or reputation.
- I have spent too much or lost a lot of money because of my drinking.
- I have had an accident while drinking or intoxicated.

Military-Specific Consequences of Drinking

You reported experiencing these problems because of your **drug use**:

- You did not get promoted
- You got a lower score of efficiency report or performance rating
- You got called up during off duty hours and reported to work drunk or intoxicated
- You received Uniform Code of Military Justice punishment
- You spent time in jail, stockade, or brig
- You had a drop in Physical Training Score

Reasons you drink alcohol

Almost Always / Always

- To forget your worries.
- Because your friends pressure you to drink.
- Because it helps you enjoy a party.
- Because it helps you when you are feeling nervous
- Because it helps you when you are feeling depressed.
- To be sociable.
- To cheer you up when you are in a bad mood.
- Because you like the feeling.
- So that others won't kid you about *not* drinking.
- To stop you from feeling so hopeless about the future.
- To reduce your anxiety.
- Because it's exciting.
- To get high.
- Because it makes social gatherings more fun.
- To numb your pain.
- To fit in with a group you like.
- Because it gives you a pleasant feeling
- To turn off negative thoughts about yourself.
- Because it improves parties and celebrations.
- Because it makes you feel more self-confident or sure of yourself.
- To celebrate a special occasion with friends.
- To relax.
- To stop you from dwelling on things.
- Because it's fun.
- To be liked.
- To help you feel more positive about things in your life.
- So you won't feel left out.
- To forget painful memories.

Most of the time

- To forget your worries.
- Because your friends pressure you to drink.
- Because it helps you enjoy a party.
- Because it helps you when you are feeling nervous
- Because it helps you when you are feeling depressed.
- To be sociable.
- To cheer you up when you are in a bad mood.
- Because you like the feeling.
- So that others won't kid you about *not* drinking.
- To stop you from feeling so hopeless about the future.
- To reduce your anxiety.
- Because it's exciting.
- To get high.
- Because it makes social gatherings more fun.
- To numb your pain.
- To fit in with a group you like.
- Because it gives you a pleasant feeling
- To turn off negative thoughts about yourself.
- Because it improves parties and celebrations.
- Because it makes you feel more self-confident or sure of yourself.
- To celebrate a special occasion with friends.
- To relax.
- To stop you from dwelling on things.
- Because it's fun.
- To be liked.
- To help you feel more positive about things in your life.
- So you won't feel left out.
- To forget painful memories.

Half the time

- To forget your worries.
- Because your friends pressure you to drink.
- Because it helps you enjoy a party.
- Because it helps you when you are feeling nervous
- Because it helps you when you are feeling depressed.
- To be sociable.
- To cheer you up when you are in a bad mood.
- Because you like the feeling.
- So that others won't kid you about *not* drinking.
- To stop you from feeling so hopeless about the future.
- To reduce your anxiety.
- Because it's exciting.
- To get high.
- Because it makes social gatherings more fun.
- To numb your pain.
- To fit in with a group you like.
- Because it gives you a pleasant feeling
- To turn off negative thoughts about yourself.
- Because it improves parties and celebrations.
- Because it makes you feel more self-confident or sure of yourself.
- To celebrate a special occasion with friends.
- To relax.
- To stop you from dwelling on things.
- Because it's fun.
- To be liked.
- To help you feel more positive about things in your life.
- So you won't feel left out.
- To forget painful memories.

Some of the time

- To forget your worries.
- Because your friends pressure you to drink.
- Because it helps you enjoy a party.
- Because it helps you when you are feeling nervous
- Because it helps you when you are feeling depressed.
- To be sociable.
- To cheer you up when you are in a bad mood.
- Because you like the feeling.
- So that others won't kid you about *not* drinking.
- To stop you from feeling so hopeless about the future.
- To reduce your anxiety.
- Because it's exciting.
- To get high.
- Because it makes social gatherings more fun.
- To numb your pain.
- To fit in with a group you like.
- Because it gives you a pleasant feeling
- To turn off negative thoughts about yourself.
- Because it improves parties and celebrations.
- Because it makes you feel more self-confident or sure of yourself.
- To celebrate a special occasion with friends.
- To relax.
- To stop you from dwelling on things.
- Because it's fun.
- To be liked.
- To help you feel more positive about things in your life.
- So you won't feel left out.
- To forget painful memories.

Consequences of Drug Use

You reported experiencing these problems because of your **drug use**:

- I have been unhappy because of my drug use.
- Because of my drug use, I have not eaten properly.
- I have failed to do what is expected of me because of my drug use.
- I have felt guilty or ashamed because of my drug use.
- I have taken foolish risks when I have been using other drugs.
- When using drugs, I have done impulsive things that I regretted later.
- My physical health has been harmed by my drug use.
- I have had money problems because of my drug use.
- My physical appearance has been harmed by my drug use.
- My family has been hurt by my drug use.
- A friendship or close relationship has been damaged by my drug use.
- My drug use has gotten in the way of my growth as a person.
- My drug use has damaged my social life, popularity, or reputation.
- I have spent too much or lost a lot of money because of my drug use.
- I have had an accident while intoxicated or high..

Military-Specific Consequences of Drug Use

You reported experiencing these problems because of your **drug use**:

- You did not get promoted
- You got a lower score of efficiency report or performance rating
- You got called up during off duty hours and reported to work high or intoxicated
- You received Uniform Code of Military Justice punishment
- You spent time in jail, stockade, or brig
- You had a drop in Physical Training Score

Money Spent

In a typical month, you spend about [$--] on alcohol.

In a typical month, you spend about [$--] on [drug of choice].

Mental Health: Military Stress

You reported the following symptoms:

Extremely

- Repeated, disturbing memories, thoughts, or images, of the stressful experience.
- Repeated, disturbing dreams of the stressful experience.
- Suddenly acting or feeling as if the stressful experience was happening again (as if you were reliving it).
- Feeling very upset when something reminded you of the stressful experience.
- Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience.
- Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it.
- Avoiding activities or situations because they reminded you of the stressful experience.
- Trouble remembering important parts of the stressful experience.
- Loss of interest in activities that you used to enjoy.
- Feeling distant or cut off from other people.
- Feeling emotionally numb or being unable to have loving feelings for those close to you?
- Feeling as if your future will somehow be cut short.
- Trouble falling or staying asleep.
- Feeling irritable or having angry outbursts.
- Having difficulty concentrating.
- Being “super-alert” or watchful or on guard.
- Feeling jumpy or easily startled.

Moderately

- Repeated, disturbing memories, thoughts, or images, of the stressful experience.
- Repeated, disturbing dreams of the stressful experience.
- Suddenly acting or feeling as if the stressful experience was happening again (as if you were reliving it).
- Feeling very upset when something reminded you of the stressful experience.
- Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience.
- Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it.
- Avoiding activities or situations because they reminded you of the stressful experience.
- Trouble remembering important parts of the stressful experience.
- Loss of interest in activities that you used to enjoy.
- Feeling distant or cut off from other people.
- Feeling emotionally numb or being unable to have loving feelings for those close to you?
- Feeling as if your future will somehow be cut short.
- Trouble falling or staying asleep.
- Feeling irritable or having angry outbursts.
- Having difficulty concentrating.
- Being “super-alert” or watchful or on guard.
- Feeling jumpy or easily startled.

Quite a bit

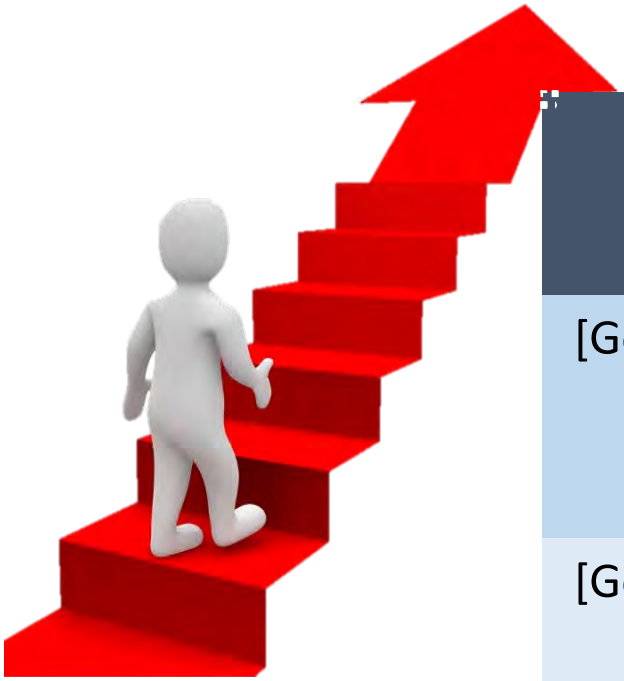
- Repeated, disturbing memories, thoughts, or images, of the stressful experience.
- Repeated, disturbing dreams of the stressful experience.
- Suddenly acting or feeling as if the stressful experience was happening again (as if you were reliving it).
- Feeling very upset when something reminded you of the stressful experience.
- Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience.
- Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it.
- Avoiding activities or situations because they reminded you of the stressful experience.
- Trouble remembering important parts of the stressful experience.
- Loss of interest in activities that you used to enjoy.
- Feeling distant or cut off from other people.
- Feeling emotionally numb or being unable to have loving feelings for those close to you?
- Feeling as if your future will somehow be cut short.
- Trouble falling or staying asleep.
- Feeling irritable or having angry outbursts.
- Having difficulty concentrating.
- Being “super-alert” or watchful or on guard.
- Feeling jumpy or easily startled.

A little bit

- Repeated, disturbing memories, thoughts, or images, of the stressful experience.
- Repeated, disturbing dreams of the stressful experience.
- Suddenly acting or feeling as if the stressful experience was happening again (as if you were reliving it).
- Feeling very upset when something reminded you of the stressful experience.
- Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience.
- Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it.
- Avoiding activities or situations because they reminded you of the stressful experience.
- Trouble remembering important parts of the stressful experience.
- Loss of interest in activities that you used to enjoy.
- Feeling distant or cut off from other people.
- Feeling emotionally numb or being unable to have loving feelings for those close to you?
- Feeling as if your future will somehow be cut short.
- Trouble falling or staying asleep.
- Feeling irritable or having angry outbursts.
- Having difficulty concentrating.
- Being “super-alert” or watchful or on guard.
- Feeling jumpy or easily startled.

Summary of Risk Factors:

Tolerance:	Very High
Family History:	High
Other Drug Risk:	Medium
Mental Health:	Low



Life Goals

My Goals:	My use of alcohol and other drugs affects this goal:	Reducing my Alcohol and other drugs use would affect this goal:
[Goal 1]	☐ Very Positively	☐ Very Positively
	☐ Positively	☐ Positively
	☐ Neutral	☐ Neutral
	☐ Negatively	☐ Negatively
	☐ Very Negatively	☐ Very Negatively
[Goal 2]	☐ Very Positively	☐ Very Positively
	☐ Positively	☐ Positively
	☐ Neutral	☐ Neutral
	☐ Negatively	☐ Negatively
	☐ Very Negatively	☐ Very Negatively
[Goal 3]	☐ Very Positively	☐ Very Positively
	☐ Positively	☐ Positively
	☐ Neutral	☐ Neutral
	☐ Negatively	☐ Negatively
	☐ Very Negatively	☐ Very Negatively
[Goal 4]	☐ Very Positively	☐ Very Positively
	☐ Positively	☐ Positively
	☐ Neutral	☐ Neutral
	☐ Negatively	☐ Negatively
	☐ Very Negatively	☐ Very Negatively
[Goal 5]	☐ Very Positively	☐ Very Positively
	☐ Positively	☐ Positively
	☐ Neutral	☐ Neutral
	☐ Negatively	☐ Negatively
	☐ Very Negatively	☐ Very Negatively

Cost Analysis – Warrior Check-Up

Two cost scenarios are presented. The first cost analysis is based on actual expenditures during the Warrior Check Up Trial of MIF vs. EdCon. The second cost analysis adjusts clinical intervention costs to project the anticipated costs of running this intervention in a "real world" context. Results of the cost analyses are presented in Tables 1 and 2 below.

Table 1: Actual Costs Incurred During the Intervention

The research trial was conducted from November 2010 – February 2014 and compared two study conditions, MIF/Experimental and EdCon/Control. During this timeframe, costs were incurred for recruitment supplies, media purchases, recruitment personnel, clinical personnel, administrative personnel, space/facilities, phone, and copying.

Table 1: Costs of MIF and EdCon

Resource Category	Total Cost over Duration of the Intervention	Cost of MIF/ Experimental	Cost of EdCon /Control
Recruitment Supplies and Media Purchases	$68,238	$34,119	$34,119
Recruitment Personnel	$25,211	$12,605	$12,605
Administrative Costs	$16,681	$8,340	$8,340
Administrative Personnel	$87,027	$43,513	$43,513
Clinical Personnel	$138,586	$90,081	$48,505
Total Intervention Costs	**$335,742**	**$188,659**	**$147,083**
Intervention Cost Per Session		**$1,585**	**$1,236**

Most resources were split evenly between the two study conditions. Clinical personnel (counselors) spent more time with MIF participants so those costs were distributed as 65% for MIF/Experimental and 35% for EdCon/ Control. Total Intervention costs over the duration of the study were $335,742. By study condition this amounted to $188,659 for MIF/Experimental and $147,083 for EdCon/Control. Each condition received 119 sessions over the study giving a total cost per session of $1,585 for MIF/Experimental and $1,236 for EdCon/Control.

Table 2: Projected "Real World" Costs of MIF and EdCon

Several adjustments were made to the cost estimates reported in Table 1 to represent how much the interventions would cost in the absence of a research trial. This cost analysis perspective is useful for thinking about future implementation, scalability, and sustainability of these interventions in a "real world" context.

Table 2: "Real World" Costs of MIF and EdCon

Resource Category	Total Cost over Duration of the Intervention	Cost of MIF/ Experimental	Cost of EdCon /Control
Training (counselor and supervisor)	$2,548		
Online assessment, PFR Creation Tool	$4,777		
Intervention Sessions			
Counselor time		$56.10	$30.95
Supervisor time		$24.24	$24.24
Participant time		$30.64	$19.50
Training, online assessment, PFR		$30.78	$30.78
Administrative overhead (31%)		$43.95	$32.70
Intervention "Real World" Cost Per Session		**$185.72**	**$138.17**

The fixed costs of MIF/Experimental and EdCon/Control in a non-research implementation are for staff training (counselors and supervisors), online assessment, and developing the PFR Creation tool. Counselor training featured a 2-day workshop, completing various educational materials, conducting mock intervention sessions, and spending time with the supervisor to receive feedback. In total, counselor training was estimated to be about 2 weeks of full-time effort. The average counselor salary over the duration of the trial was $3,993 per month (or $929/week; $23.2/hour).

Supervisor training included conducting the 2-day workshop, providing 2 hours of supervision to counselors on a weekly basis, listening to mock sessions and coding information (about 1.5 hours per 60 minute tape) for a total of 23 hours over a 2 week training period. A Clinical Director's salary is $5,167 per month on average (or $1,202/week; $30/hour). Training costs for the counselor and the supervisor are estimated to be $2,548.

The online assessment and PFR Creation Tool was estimated to be $4,777 based on what was paid to project staff to complete these activities. In addition, an administrative overhead rate was calculated using the ratio of total administrative costs (administrative personnel and administrative costs) from the main study ($103,708) divided by the total intervention costs ($335,742), which gave a rate of 31%.

In addition to the clinical staff time, the time invested by soldiers to participate in the interventions is included. Based on average salaries by rank and pay grade, the average monthly salary for a soldier is $2,875 ($669/week; $16.7/hour)

During the interventions, activities included: introductory call/consent, follow-up paperwork, assessment, PFR Creation and mailing, mailing EdCon materials, and the actual session time. In MIF/Experimental, counselors invested 145 minutes (on average) per session and participants invested 110 minutes. In EdCon/Control, counselors invested 80 minutes (on average) per session and participants invested 70 minutes. The supervisor also contributed time during the intervention (about 10.75 hours per month), which was divided equally across conditions. The total cost per MIF/Experimental session in a projected "real world" scenario is about $186 and the total cost per EdCon session is $138. The difference is $48 per session, which reflects the additional time invested by counselors and participants in the MIF/Experimental sessions relative to EdCon. This "incremental cost" of MIF/Experimental can be compared to improved outcomes in MIF/Experimental (relative to EdCon) to project the cost to achieve desired changes in alcohol use and other measures of intervention success.

Limitations

Conducting a cost analysis post-hoc is not as rigorous as being able to track intervention resources and costs prospectively, alongside the WCU research trial. Prospective cost data collection is considered more systematic and precise since intervention activities and expenditures can be documented as they are occurring during the research trial. This also makes it easier to identify donated/in-kind or subsidized resources (e.g., volunteer effort, reduced rental rates for office space), which are important to capture as part of the cost analysis, but would be missed in a retrospective analysis that relies on financial data from expenditure reports or program budgets. Retrospective cost analyses are very common, however, given that formal economic evaluations to examine cost effectiveness or costs and benefits are thought to be unnecessary without first establishing evidence of an intervention's clinical efficacy or effectiveness. It is important to conduct sensitivity analyses to test the assumptions framing the cost analysis. For the WCU cost analysis, we generated an alternative cost scenario that is more representative of how the intervention would be implemented in the absence of a research trial. Another example of a sensitivity analysis would be to vary the cost inputs used to value personnel and participant time (e.g., if the trial is being run by people with graduate degrees, but could be run in a non-research setting by individuals with bachelor's degrees), which would adjust the total intervention cost downwards.